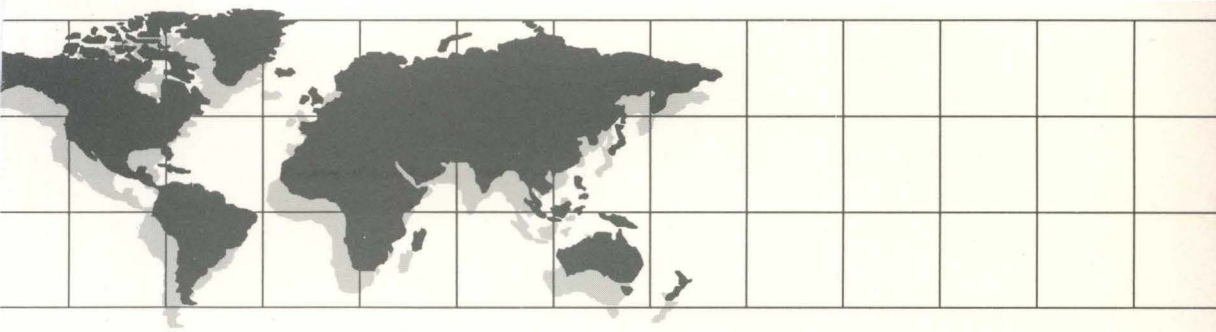


CTOS Context Manager II

Installation and Configuration Guide

UNISYS

CTOS®
Context Manager II
Installation and Configuration Guide

Release 5.0

Priced Item

November 1993
Printed in US America
4393 4652-000

The names, places and/or events used in this publication are not intended to correspond to any individual, group, or association existing, living or otherwise. Any similarity or likeness of the names, places, and/or events with the names of any indivdual, living or otherwise, or that of any group or association is purely coincidental and unintended.

NO WARRANTIES OF ANY NATURE ARE EXTENDED BY THE DOCUMENT. Any product and related material disclosed herein are only furnished pursuant and subject to the terms and conditions of a duly executed Program Product License or Agreement to purchase or lease equipment. The only warranties made by Unisys, if any, with respect to the products described in this document are set forth in such License or Agreement. Unisys cannot accept any financial or other responsibility that may be the result of your use of the information in this document or software material, including direct, indirect, special or consequential damages.

You should be very careful to ensure that the use of this information and/or software material complies with the laws, rules, and regulations of the jurisdictions with respect to which it is used.

The information contained herein is subject to change without notice. Revisions may be issued to advise of such changes and/or additions.

Comments or suggestions regarding this document should be submitted on a User Communication Form (UCF) with the CLASS specified as "Documentation", the Type specified as "Trouble Report", and the product specified as the title and part number of the manual (for example, 4393 4652-000).

UNISYS

Product Information Announcement

O New Release ● Revision O Update O Errata

Title:

CTOS® Context Manager II 5.0 Installation and Configuration Guide

This Product Information Announcement (PIA) announces the release and availability of the *CTOS Context Manager II Installation and Configuration Guide,* release 5.0, part number 4393 4652-000.

This Guide documents the new features in the 5.0 release of CTOS Context Manager II. It also contains corrections to the 4.1 release of the *CTOS Context/Window Installation Guide Volume 2: Protected Mode.*

To order additional copies of this document:

- Customers in the United States can call Unisys Direct at 1-800-448-1424
- All other customers can contact their Unisys representative
- Unisys personnel can order through the Electronic Literature Ordering (ELO) system

Please address all technical and documentation comments relative to this release to:

Unisys Corporation
Product Information
5155 Camino Ruiz
Camarillo, CA 93012

Call our feedback line at : (800) 729-0451

Or, fax your comments to: (805) 389-4483

Initial Announcement only: BT082

All Announcements: BT081

System: CTOS
Release: Context Manager II 5.0 (November 1993)
Part Number: 4393 4652-000

Page Status

Page	Issue
iii	Original
iv	Blank
v through ix	Original
x	Blank
xi	Original
xii	Blank
xiii through xiv	Original
1-1 through 1-16	Original
2-1 through 2-15	Original
2-16	Blank
3-1 through 3-3	Original
3-4	Blank
4-1 through 4-30	Original
5-1 through 5-14	Original
A-1 through A-7	Original
A-8	Blank
B-1 through B-11	Original
B-12	Blank
Glossary-1 through 15	Original
Glossary-16	Blank
Index-1 through 4	Original

Contents

Section 3: Installing Context Manager

Section 4: Configuring and Starting Context Manager

Section 5: Changing Your Context Manager Configuration

Appendix A: Status Codes and Messages

Appendix B: Tutorial for Configuring Context Manager

Appendix C: System Configuration Notes

Figures

Tables

About This Guide

This guide contains the information you need to install and configure CTOS Context Manager II.

Note: *Throughout the rest of this guide, Context Manager II is abbreviated to Context Manager.*

Who Should Use This Guide

Both CTOS users and system administrators can use this guide. The procedures are easier to perform if you are familiar with the CTOS Executive. If not, you may want to do the CTOS computer-based training course first or ask an experienced user for assistance.

How This Guide Is Arranged

The information in this guide is organized as follows:

- Section 1 contains an overview of the Context Manager
- Section 2 contains information you need to plan your Context Manager configuration, including a planning form on which to enter your configuration.
- Section 3 gives the procedures for installing Context Manager
- Section 4 gives the procedures for configuring and starting Context Manager.
- Section 5 gives the procedures for updating a Context Manager configuration.
- Appendix A contains error messages and status codes.

- Appendix B contains exercises you can use to practice configuring Context Manager.
- Appendix C contains special configuration reference information.

This guide also contains a table of contents, a glossary, and an index.

Note: *To perform the training exercises in the CTOS Context Manager Operations Training Guide, you must configure your workstation as specified in appendix B of this guide.*

How to Use This Guide

If you are installing and configuring this product for the first time, you should begin by reading sections 1 and 2. They contain introductory and planning information you need to successfully install and configure Context Manager.

Before you actually configure Context Manager using the procedures in section 4, you may want to do a practice configuration using the tutorial in appendix B. (This also sets up the configuration needed for the Context Manager training exercises.)

In addition, if you look over the table of contents and review the topics before you start, you may find this guide easier to use. To locate specific information, you should use the index.

Terminology

Certain terms and abbreviations are used with specialized meaning:

- The term *application* refers to applications, utilities, Executive commands, and other programs accessible through Context Manager.
- The term *context* refers to an application that has been started under Context Manager.
- The abbreviation KB represents kilobytes of memory.

Conventions

This guide uses the following typographical conventions:

- When two keys are used together for an operation, the keys are hyphenated (for example, **ACTION+GO** means that while you hold down **ACTION**, you press **GO**).

To make information easier to find, the following appears in boldface:

- information you enter
- keys you press
- names of fields
- prompts and messages that display
- unnumbered procedures and lead-ins to numbered procedures

Artwork

Although this guide attempts to provide figures closely approximating screen displays, figures are examples only (not exact replicas) of displayed text or forms. For example, representations of screens do not show the version number of the software. Your displays may differ from them in other minor details.

Related Product Information

Table 1 lists related product information you may want to refer to when installing and configuring Context Manager.

Table 1. Related Product Information

Type of Information	Document Title
CTOS introductory information	Computer-Based Training: CTOS System
CTOS Executive commands	CTOS Executive Reference Manual
CTOS Editor information	CTOS Editor User's Guide
CTOS reference information	CTOS Operating System Concepts Manual
	CTOS Programming Guide
CTOS Context Manager programming information	CTOS Context Manager II Programming Guide
Using Context Manager	CTOS Context Manager II Operations Training Guide
Information about applications you plan to run under Context Manager	The appropriate application manuals

Section 1

What Is CTOS Context Manager?

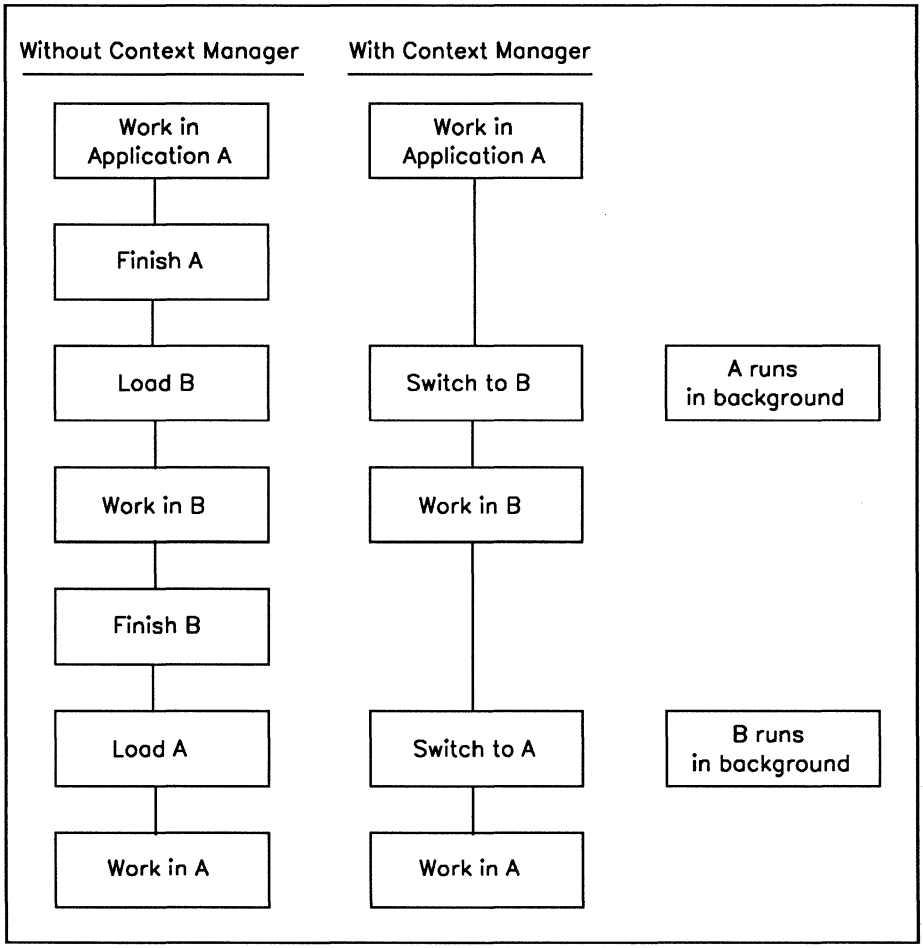
The CTOS Context Manager software package contains two major components: the Context Manager Service, which manages multiple contexts, and the CM Screen, which acts as a user interface to the Context Manager Service.

Context Manager

CTOS Context Manager is a software utility that allows other applications, utilities, or programs (all referred to in this guide as applications) to run concurrently.

Using Context Manager, you switch from one application to another without having to exit the first and start the second (refer to figure 1-1). You can work with one application while others, not visible, execute in the background.

Figure 1-1. Switching Between Applications



For example, suppose you must interrupt word processing to copy files to a diskette. Using this Context Manager, you can switch to the Executive, start the **COPY** command, and return to word processing while the **COPY** command executes. You do not have to save, close, or open files to switch between the word processor and the Executive.

Context Manager includes two major components: the Context Manager Screen (CM Screen), which is the default user interface for Context Manager, and the Context Manager Service (CM Service), which manages partitions, procedural requests, and the video display.

Programmers can use Context Manager's API calls to create their own user interface applications to use with Context Manager instead of the CM Screen. For programming information on the Context Manager, refer to the *CTOS Context Manager II Programming Guide.*

Context Manager makes it easier and quicker for you to access the applications you use most often. Because this group of applications varies for each user, you can configure (customize) Context Manager for your own use.

This section gives an overview of:

- Context Manager's features
- how Context Manager works
- how you configure Context Manager to meet your requirements
- the tasks required to install, configure and start Context Manager

For information on how you use Context Manager once it is installed, configured, and started, refer to the *CTOS Context Manager II Operations Training Guide.*

Context Manager's Features

Context Manager includes the following capabilities:

- allows you to configure a wide variety of applications

  Applications can be CTOS applications or they can run under operating systems that CTOS hosts (for example, MS-DOS).

- allows you to configure up to thirty applications to be started from your user interface
- runs up to 20 applications concurrently
- allows you to start applications either from the Context Manager screen or with preassigned function keys

- can automatically start contexts (autostart) each time you start Context Manager
- can assign function keys for up to ten applications
- provides for data transfer between contexts, using configurable cut and paste action keys
- runs CTOS applications created by programmers in accordance with the guidelines in the *CTOS Context Manager II Programming Guide*
- provides a choice of user interfaces

  You can access and manipulate contexts using the default CM Screen or create an interface in accordance with the programming guidelines in the *CTOS Context Manager II Programming Guide.*
- supports graphics applications

  Color and graphics applications work just as well under Context Manager as they do when started from the Executive.
- supports use of a mouse
- allows you to specify an exit run file
- provides the CM Editor, which enables real-time updating of your Context Manager configuration

  The CM Editor is a dedicated Context Manager configuration file editor. If you use CM Editor to edit your Context Manager configuration file, Context Manager automatically updates itself to reflect the changes you make.

How Context Manager Works

To understand how you configure Context Manager, it is helpful to understand how it works. Without Context Manager, before you start a new application, you must exit your current application. With Context Manager, you can switch between applications running simultaneously. How is this accomplished?

Loading Applications into Memory

When you start an application, such as a word processor, the operating system loads the application from disk into an area of memory (refer to figures 1-2 and 1-3).

Figure 1-2. Memory before Loading Application

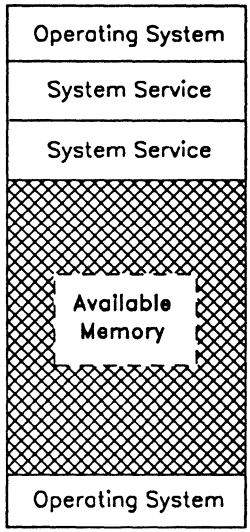
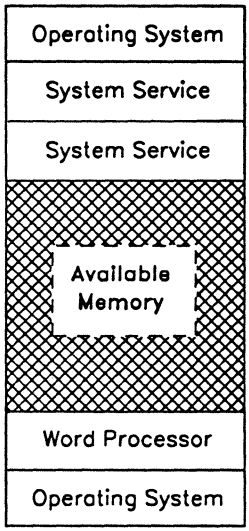


Figure 1-3. Memory After Loading Application

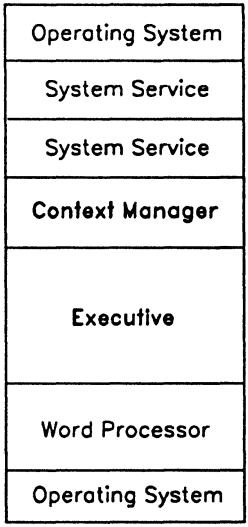


Without Context Manager, you can load only one application at a time, even though the application may not use all the memory available. To start a new application, you must first exit the current application, removing it from memory, then load the new one.

With Context Manager, you can load multiple applications into memory and run them simultaneously (refer to figure 1-4). Instead of exiting an application so that you can start another, you can leave the application open while you switch to a different one.

Note: *You cannot run two programs that access the same communications port. For example, you cannot run two communications applications that both use channel A.*

Figure 1-4. Memory with Context Manager



Configuring Memory Partitions

The memory areas into which you load applications are called *partitions*. As you start each application, Context Manager creates a partition and places the application in it, until no more memory is left.

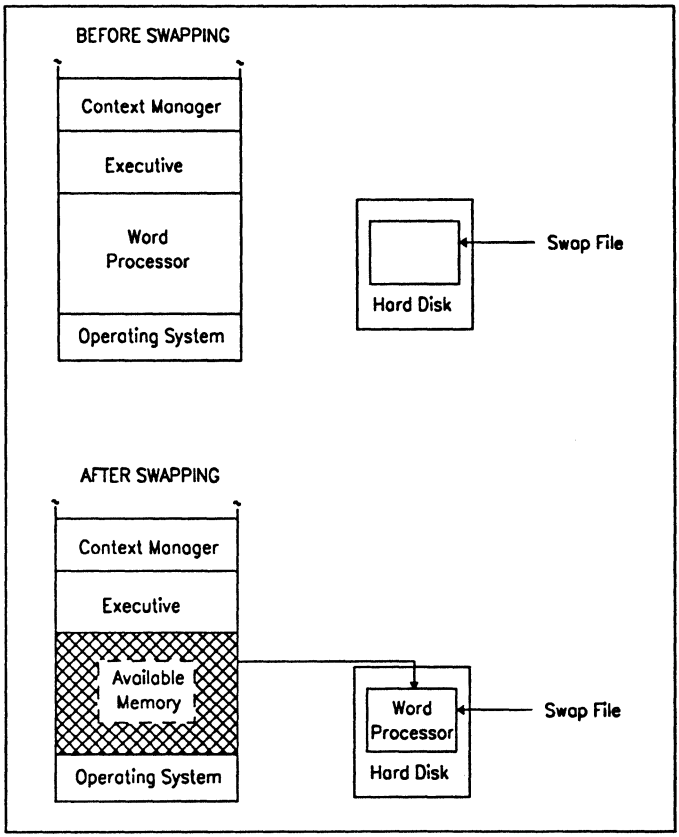
Context Manager can create *fixed-size* or *variable-size* partitions. Variable-size partitions adapt themselves to fit the size of the application. When you configure an application for Context Manager for each application, you can either fix the size of an application's partition yourself (creating a fixed-size partition) or allow Context Manager to automatically determine the partition size (creating a variable-size partition).

Graphics applications can have additional memory requirements, such as memory required for changing fonts. You can configure Context Manager to reserve memory for these requirements.

Swapping Applications to Disk

Due to its sophisticated memory management techniques, CTOS III can run a large number of applications simultaneously. However, if you already have many contexts started and try to start an additional context, CTOS III may make use of a disk file called a *swap file*, which it treats as if it were additional memory. Using a swap file enables CTOS III to run additional applications. If the swap file has not already been created, CTOS III creates it. If you have started enough applications so that all your system's memory is used up and you try to start an additional application, CTOS automatically transfers (*swaps*) all or part of an application to the swap file to accommodate the new application (refer to figure 1-5). For more information on swapping, refer to the *CTOS Operating System Concepts Manual.*

Figure 1-5. Swapping an Application to Disk



When you switch to a context that was swapped earlier, the operating system clears room for it by swapping all or part of another context to the swap file and then resizing the partition so it fits the requested context.

Swapping an application between disk and memory takes several seconds--much faster than starting and finishing the application--and is done automatically by the operating system.

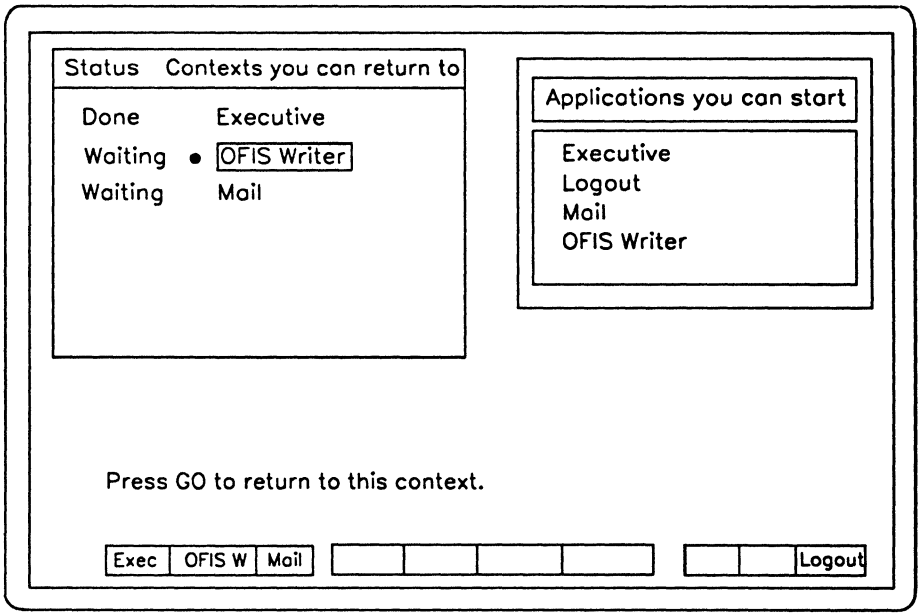
Switching Between Contexts

Once you start an application in Context Manager, it is called a *context*. Although several contexts may be running concurrently, you interact with only one at a time. The one you interact with is called the current context. It is the only one that responds to input. When you switch contexts, the one you switch to becomes the current one.

For example, if you are typing a memo on the word processor and receive an urgent mail message, you switch to mail, automatically making mail the current context. You read and respond to the mail message. When you return to the word processor, it replaces mail as the current context.

To start or finish applications in Context Manager or to switch between contexts, you press preassigned function keys or make selections on the Context Manager display (refer to figure 1-6). Context Manager can run up to 20 applications concurrently, and up to 10 of these applications can be assigned to function keys.

Figure 1-6. Context Manager Display (Example)



Configuring Context Manager

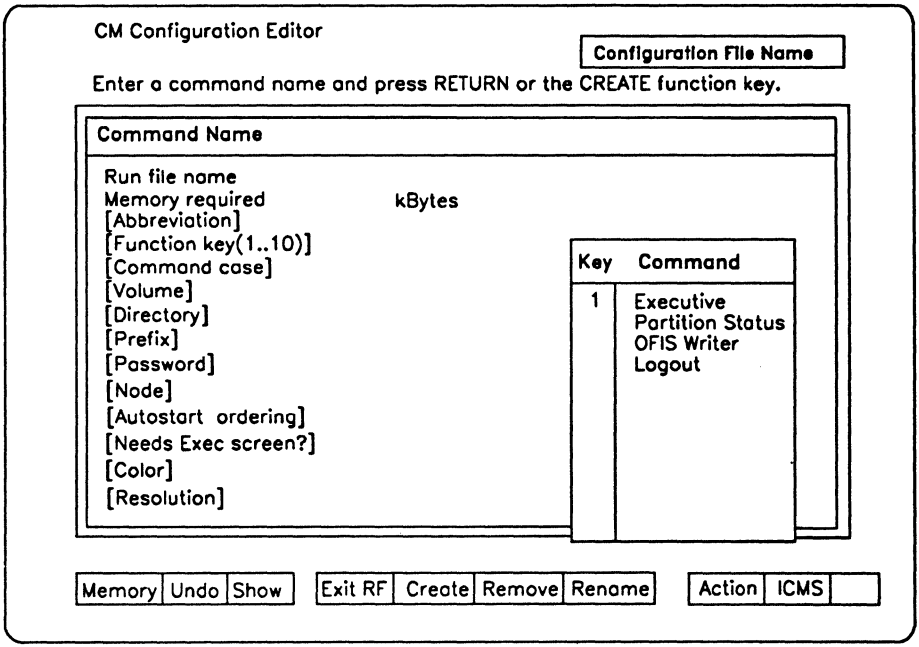
The Context Manager package includes a default configuration file that lets you start the Executive, OFIS Writer, Partition Status, and Logout applications. (The OFIS Writer software is not part of the Context Manager package; the configuration file contains only the command to access OFIS Writer through Context Manager.)

You edit this configuration file, or create a new one, to allow you to access the particular applications you want to run under Context Manager. For example, if you want to run OFIS Mail, you add the information needed to run it.

When editing the configuration file, or creating a new one, you fill in fields on the CM Editor form (refer to figure 1-7). Some information is required and some is optional. Required information includes the following:

- the command name of the application
- the name of the application run file
- memory information Context Manager uses to create the partition for the application

Figure 1-7. CM Editor Display



Optional information includes such choices as:

- the function key preassigned to an application, if any
- the abbreviation that appears on the function key for an application
- whether to load an application automatically
- the order in which applications load automatically
- the color of the application
- the resolution of the application

You can specify up to 30 different applications in the Context Manager configuration file. A maximum of 20 contexts can run concurrently. However, whether you can actually run an application under Context Manager and how many you can run simultaneously depends on the amount of memory available, the particular applications you want to run, the operating system you are running, and how you configure the memory information and swap file.

You also have the option of editing the operating system configuration file to configure the size of the swap file and specify which swap file to use. Although the system creates a default swap file automatically if none exists, you may want to create one larger or smaller than the default.

Context Manager User Interface Options

Context Manager architecture is divided into a Context Manager Service, which manages multiple contexts, and the CM Screen, which acts as a user interface (the Context Manager Display). This gives you two alternatives in choosing a user interface:

- use the CM Screen as the user interface
- substitute a compatible programmer-created user interface

The Install Context Manager command installs the Context Manager Service and whatever user interface you choose. For details on starting Context Manager using any of these options for your user interface, refer to section 4. For information on creating a compatible user interface, refer to the *CTOS Context Manager II Programming Guide*.

Installation and Configuration Check List

This checklist gives the sequence of tasks for installing, configuring, and starting Context Manager. Each check list item refers you to additional information about performing the task listed.

- ❒ Verify your system is running a supported CTOS virtual mode operating system.

  Refer to section 2 for a list of supported operating systems.

- ❒ Plan your Context Manager configuration.

  Refer to section 2, Planning Your Context Manager Configuration.

- ❒ Install the Context Manager software.

  Refer to section 3, Installing Context Manager.

- ❒ Verify the amount of memory available is sufficient for running Context Manager and the applications in your configuration.

  - For information about application memory requirements, refer to section 2, Planning Your Context Manager Configuration.
  - For information about memory requirements for Context Manager, refer to section 3, Installing Context Manager.
  - For information about determining available memory, refer to appendix C.

- ❒ Install your application software.

  Install the applications (such as a word processor, spreadsheet, or other software) you intend to use with Context Manager.

  Refer to the appropriate documentation for installation instructions.

- ❒ Configure Context Manager.
  - For information on configuring Context Manager, refer to section 4, Configuring Context Manager.
  - To practice configuring Context Manager, refer to appendix B, Tutorial for Configuring Context Manager.
  - To update a Context Manager configuration, refer to section 5, Changing Your Context Manager Configuration.

  You are ready to start Context Manager.
- ❒ Start Context Manager.

  Refer to section 4, Configuring and Starting Context Manager.

Section 2
How Applications Interact Under Context Manager

This section describes how applications interact under Context Manager. It includes the following information:

- video overview
- application modifications under Context Manager
- suspended background applications
- applications you can swap
- communication with Context Manager
- behavior of CTOS products and system services under Context Manager

The information described in this section presumes your familiarity with CTOS. For information regarding the operating system, refer to the *CTOS Operating System Concepts Manual.*

You should also be familiar with each application that you run under Context Manager. Refer to the appropriate application's documentation for information.

Context Manager requires the CTOS II 3.3.8 (or higher) or CTOS III 1.0 (or higher) operating system. From the application programmer's viewpoint, Context Manager acts as an extension of the operating system and takes over some of its functions. It lets applications run concurrently, each using a separate memory partition.

You can write your application program as if it were running on a single-partition operating system outside of the Context Manager software, but the program must conform to the guidelines given in this section.

Video Overview

Each memory partition has an application character map and a system structure called the video pointer map.

The video pointer map is an array of pointers, one for each line of the screen. These pointers always point to the location of the associated line of the application's screen.

The application character map is an array that stores lines of the screen when an application is running in the background.

When you switch from one context (context A) to another context (context B), the following three steps occur:

- The real screen is copied into context A's character map.
- Context B's character map is copied to the real screen.
- The pointers in both video pointer maps are updated to reflect the appropriate position, either on the real screen or in the application character map.

Figure 2-1. Application Planning Form

Application Planning Form

REQUIRED INFORMATION | OPTIONAL INFORMATION

Command Names	Run File Names	Memory Req.(min/max)	Abbrev.	AutoStart	F.Key
1.		KB			
2.		KB			
3.		KB			
4.		KB			
5.		KB			
6.		KB			
7.		KB			
8.		KB			
9.		KB			
10.		KB			

Command Name Field

You choose the command name for the application. For example, if one of your applications is OFIS Writer, you can choose to enter the command name OFIS Writer or Word Processing. The name you select appears on the Context Manager display. Optionally, you can enter an abbreviation to appear on the function key, if you assign one to the application; the default abbreviation is the first six characters of the command name.

Run File Name Field

Refer to your application documentation for the name of the application's run file. Ususally it has a suffix *.run* (for example, the run file for OFIS Mail is *Mail.run*).

Memory Required Field

Enter a number in the Memory required field to set the size of the partition Context Manager creates for this application.

Refer to the application's documentation to find the amount of memory required for that application. It may list both a minimum and maximum amount. (Appendix C lists memory requirements for some common applications.)

For some applications, setting the partition to the minimun size is sufficient. Others, such as graphics and spreadsheet applications, create files that occupy large amounts of memory. For these applications, you should set the partition size to the maximum figure (if one is given and you have enough memory available). (Refer to Determining Available Memory in appendix C.)

Entering the maximum memory required ensures that Context Manager allocates enough memory to run your application. However, you can enter a lesser amount to begin with and increase it later if you find it insufficient for the application.

You have four choices in how you configure the partition for an application. These are discussed in the following subsection.

Configuring Memory Partitions

You can specify a partition of fixed or variable size. A variable-size partition varies in size (up to the maximum specified) depending on the application's memory needs.

When you enter a value in the *Memory required* field, you choose between four types of partitions, as follows:

- a variable-size partition that is not to exceed the amount you specify
- a variable-size partition that is not to exceed the maximum size specified in the application's run file

  You should choose this type only if the application's run file contains information on the minimum and maximum memory required. To determine if a run file contains sizing information, use the Executive command **Version**, and specify **Y** (Yes) for the *[Details?]* parameter. If figures display for the *Min dynamic memory size:* and *Max dynamic memory size:* parameters, the run file contains sizing information. If *<all>* displays for these parameters, the run file does not contain sizing information.
- a fixed-size partition of a specific size
- a fixed-size partition equal to the size of available memory when the run file is loaded

It is to your advantage to create variable-size partitions, as this allows you to run more programs in memory at the same time.

Creating Variable-Size Partitions

If you want a variable-size partition created, you have two choices for the entry in the *Memory required* field:

- enter a less-than sign (<) followed by the maximum size in kilobytes that the partition is not to exceed:

  <nnn
- enter a less-than sign followed by a zero:

  <0

Specifying <nnn

Specifying <nnn indicates that you want this partition to have a maximum size. For example, if you enter <150 in this field, the maximum size of this partition is not to exceed 150KB. Entering nnn as the maximum memory an application requires (as specified in its documentation) ensures that Context Manager allocates enough memory to run the application. However, if the maximum memory is "all available memory," you can enter the minimum amount and increase it later if the partition is not large enough.

When you specify the size of the partition in this way, Context Manager takes the sizing information from the application's run file (if available) or from the amount you specify, whichever is lowest. For example, if you enter <150 in this field and the run file's maximum sizing information is 120KB, Context Manager creates a partition of 120KB. But if you enter <100 and the run file maximum sizing information is 120KB, Context Manager creates a partition of 100KB.

If you create a variable-size partition and subsequently chain from one run file to another requiring less memory, the partition size does not change, but the amount of memory used decreases. For example, if you create a partition with a maximum size of <150KB and chain to an application requiring only 120KB, the partition size remains 150KB, but only 120KB of it is used.

Specifying <0

Specifying <0 indicates that this variable-size partition is not to exceed the maximum sizes specified in the run file or in available memory. (Available memory is the amount of memory left after the operating system and all system services have been loaded.)

If the application's run file does not contain maximum sizing information, do not use <0 to specify the partition size. To determine if a run file contains sizing information, use the Executive command **Version**, and specify **Y** (Yes) for the *[Details?]* parameter. If figures display for the *Min dynamic memory size:* and *Max dynamic memory size:* parameters, the run file contains sizing information and you can specify **<0**. If *<all>* displays for these parameters, the run file does not contain sizing information, and you cannot specify **<0**.

Creating Fixed-Size Partitions

If you want a fixed-size partition, you have the following choices:

- enter the partition size in KB: nnn
- enter a zero: 0

Specifying nnn creates a fixed-size partition equal to the size you enter, if enough memory is or can be made available. For example, by entering 150 in this field, you create a partition of 150KB. If less memory than you specified is or can be made available, Context Manager creates the largest partition possible with the memory available.

Specifying 0 creates a fixed-size partition equal to the size of available memory when the run file is loaded. For example, if available memory is 800KB, and you load an application that has a maximum size of 180KB indicated in the run file, the size of the partition created is 800KB.

Configuration Options

Context Manager contains three configuration options that make it easier and more convenient to use:

- Autostart
- preassigned function keys
- reserving memory for bitmaps and fonts

You can also make better use of your available memory and disk space by creating your own swap file.

This subsection covers these configuration options.

Autostarting Applications

The Autostart feature lets you specify applications that Context Manager starts automatically when you start Context Manager.

To specify that an application should be Autostarted, enter a number in the CM Editor *Autostart* field which indicates the order the application should be Autostarted in. For example, enter **1** in the *Autostart* field for the first application to start, **2** for the second, and so on up to 9. Leaving the *Autostart* field blank or specifying 0 indicates that the application should not be autostarted.

When you have one or more applications selected for Autostarting, the Context Manager screen appears immediately after you start Context Manager and displays the following message:

```
AUTOSTARTING...
```

The last application Autostarted becomes the current context (the one displayed on your screen); the others run in the background.

For example, if you assign an Autostart value of 1 to the Executive, 2 to OFIS Writer, and 3 to OFIS Mail, when you start Context Manager, the `AUTOSTARTING...` message appears, then the OFIS Mail screen appears; the Executive and OFIS Writer run in other contexts in the background.

If you assign the same Autostart value to more than one application, Context Manager starts those applications in alphabetical order. You can use this feature to autostart up to 20 contexts by assigning each Autostart value 1 through 9 more than once.

Preassigning Function Keys

If you preassign a function key to an application in Context Manager, once that application is started, you can switch to it at any time by pressing **ACTION** and the function key assigned to the application. If you preassign a function key, you always press the same key to access that application. For example, if you preassign the key **F1** to the Executive, you always press **ACTION+F1** to access the Executive.

To preassign a function key to an application, enter the number of the key you want to assign in the *Function key* field of the CM Editor.

If you do not preassign a function key, Context Manager assigns a temporary one when it starts the application until all ten function keys have applications assigned to them. You can view the Context Manager display to find out which keys are assigned to which applications.

You can also configure an application to not have a function key assigned to it. To do this, specify **0** in the *Function key* field of the CM Editor display for that application. (For more on entering information on the CM Editor form, refer to section 4.)

If an application does not have an assigned function key, you switch to that application by highlighting the application in the *Contexts you can return to* field of the Context Manager display and pressing **GO**. You can also switch to an application by using the **ACTION+NEXT** and **ACTION+-** (Numeric minus) keys to cycle through the running applications.

Reserving Memory for Bitmaps and Fonts

If you plan to run multiple graphics applications or applications that load their own fonts, you may want to consider an additional memory requirement: saving an application's bitmaps and fonts in memory when the application is switched to the background. The Memory Area (displayed by pressing **F1**) of the CM Editor form contains two fields, *Bitmap reserve* and *Font reserve*. To increase performance, you can reserve memory for these items by entering your memory requirements in these fields.

Bitmap Reserve

You use this field to reserve memory for bitmapped images to be saved to memory instead of disk. The memory required to save a bitmap on a non-VGA system varies depending on the complexity of the bitmap. On a VGA system, saving a bitmap requires 512KB. The maximum value you can specify for this field is 1023KB. The total of the values you enter in this field and the *Font reserve* field should not exceed 1023KB. If they do exceed 1023KB, Context Manager subtracts the value specifed for the Font reserve from 1023KB and allocates the remainder to the Bitmap reserve.

Font Reserve

You use this field to reserve memory for fonts to be saved to memory instead of disk. On non-VGA systems, the typical font requires 8KB. On VGA systems, all fonts require 16KB. The maximum value for this field is 64KB. The total of the value of this field and the *Bitmap reserve* field should not exceed 1023KB. If they do exceed 1023KB, Context Manager subtracts the value specifed for the Font reserve from 1023KB and allocates the remainder to the Bitmap reserve.

Creating Swap Files

Although CTOS III can run a large number of applications simutaneously, it may happen that it runs out of available memory and cannot load an additional application. In this case, the operating system places all or part of an existing context in a swap file for temporary storage. It chooses a context to swap out based on the partition size needed and the status of the contexts. The context is transferred to a swap file on a local hard disk or over a cluster line to a server hard disk.

If you have not specified a swap file in your system configuration file, the operating system uses *[Sys]<Sys>CrashDump.sys* as the primary swap file. You can specify an alternate swap file for use when the primary swap file cannot be accessed. The default alternate swap file is *[Sys]<Sys>SwapAreann.sys* (*nn* represents a value which begins with 00, which the system increments to 01, 02, and so on if *SwapArea00* is in use. This ensures that cluster workstations using swap files on the server will each have their own swap file).

Estimating Swap File Size

The default swap file size is the current size of the swap file. For example, if you are using *[Sys]<Sys>CrashDump.sys* as your swap file and its size is 2048 sectors, 2048 sectors is the current swap file size. To maximize system performance, you may want to create your own swap file of a particular size, or change the default swap file size. To determine the optimum swap file size, create a swap file whose size is not limited (by specifying **0** as the value for *:SwapFileSizeMax:*), and, over time as you use your system, check to see when it stops growing. Set the size it stabilizes at as the maximum swap file size.

For the procedure on configuring a swap file, refer to section 4.

Default Configuration

The Context Manager installation process copies a default configuration file to your hard disk. It contains the information required to run the following applications through Context Manager:

- Executive (preassigned to the **F1** function key)
- OFIS Writer
- Partition Status
- Logout (preassigned to the **F10** function key)

You can use the default configuration file for your Context Manager configuration, modifying it for your own requirements by adding applications you want to run and removing any you do not want, or you can create a new configuration file. The default file specifies fixed partitions. For better use of memory resources, you can change them to variable partitions, as explained in Configuring Memory Partitions in this section.

The default partition size specified for the Executive is <300KB. For most Executive commands, this is sufficient. However, some Executive commands require more than 300KB. If you receive the following message when trying to run some of these commands:

```
Not enough memory in this partition to run this application.
(Error 400)
```

increase the amount of memory specified for the Executive or add the commands or applications as separate contexts to the Context Manager configuration file (refer to Accessing Applications through the Executive in appendix B).

The Logout application is helpful when you are first using Context Manager because it provides an easy way to exit. However, by doing the exercises in the *CTOS Context Manager II Operations Training Guide*, you can learn other ways to exit that are just as easy. You can remove Logout when you no longer need it. (For information on removing applications, refer to section 5.)

You can view the default configuration file using exercise 1 in section 5. It contains the application information shown in table 2-1.

Table 2-1. Default Application Configuration

Command Name	Run File Name	Memory Required	Function Key
Executive	Exec.run	<300KB	1
OFIS Writer	OWP4.run	250KB	
Partition Status	SystemMgr.run	255KB	
Logout	SignOn.run	150KB	10

Sample Context Manager Configurations

Figures 2-2 and 2-3 show filled-in Application Planning Forms for the following sample configurations:

- Executive, OFIS Mail, Enhanced Multiplan
- Executive, OFIS Mail, OFIS Writer

The configuration information shown is only an example. You can configure the same applications differently. However, you must enter the run file name exactly as stated in the application documentation. The Application Planning Form examples show both minimum and maximum memory requirements. You can choose whether to enter the minimum, the maximum (if a specific amount is given), or an amount in between.

Figures 2-2 and 2-3 also demonstrate three possible Autostart configurations. When you start Context Manager, the following occurs:

- In the figure 2-2 configuration, Mail becomes the current context.
- In the figure 2-3 configuration, OFIS Writer becomes the current context.

Figure 2-2. Application Planning for Executive, OFIS Mail, Enhanced Multiplan (Example)

Application Planning Form

REQUIRED INFORMATION | OPTIONAL INFORMATION

Command Names	Run File Names	Memory Req.(min/max)	Abbrev.	AutoStart	F.Key
1. Executive	[Sys]<Sys>Exec.run	<300/Varies KB	Exec	1	1
2. Mail	[Sys]<Sys>Mail.run	300/600 KB	Mail	3	2
3. EMultiplan	[Sys]<Sys>Xmultiplan.run	250/1000 KB	EMulti	2	3
4.		KB			
5.		KB			
6.		KB			
7.		KB			
8.		KB			
9.		KB			
10.		KB			

Figure 2-3. Application Planning for Executive, OFIS Mail, OFIS Writer (Example)

Application Planning Form

REQUIRED INFORMATION | OPTIONAL INFORMATION

Command Names	Run File Names	Memory Req.(min/max)	Abbrev.	AutoStart	F.Key
1. Executive	[Sys]<Sys>Exec.run	<300/Varies KB	Exec	1	1
2. Mail	[Sys]<Sys>Mail.run	200/600 KB	Mail	2	2
3. OFIS Writer	[Sys]<Sys>OWP4.run	250/Max Avail KB	Writer	3	3
4.		KB			
5.		KB			
6.		KB			
7.		KB			
8.		KB			
9.		KB			
10.		KB			

Section 3

Installing Context Manager

This section describes the requirements and procedures for installing Context Manager from the distribution diskettes onto your hard disk. For information on configuring Context Manager once it is installed, refer to section 4, Configuring Context Manager.

To perform the operations described in this section, you should be familiar with Installation Manager. For information on Installation Manager, refer to the *CTOS Executive Reference Manual.*

Hardware Requirements

Context Manager requires the following hardware:

- a B28, Series 286, B38, Series 386, B39, Series 386i, Supergen, XE520, or XE530 system
- a minimum of two megabytes of memory (RAM)
- 1350 sectors of free disk space

Software Requirements

Context Manager requires one of the following operating systems:

CTOS II 3.3.8 (or higher)

CTOS III 1.0 (or higher)

Table 3-1 lists the memory required for Context Manager. The operating system, system services, and applications you want to run require additional memory for themselves.

Table 3-1. Context Manager Memory Requirements

Software Product	Memory Requirement
Context Manager Service	135KB plus partition overhead
CM Screen	95KB

Note: *If you plan to run Context Manager from a cluster workstation with local file storage, the local hard disk volume name must not be identical to the server hard disk volume name.*

Installing the Context Manager Software

Context Manager is distributed on one 3½-inch diskette or two 5¼-inch diskettes. To install the Context Manager software, use the following procedure:

1. Sign on to your system.
2. Insert the first distribution diskette (if you are installing from a 3½-inch diskette, there is only one) into your floppy drive.
3. Type **Floppy Install** in the Executive command field and press **GO**.
4. Respond to the prompts that appear for installing the software on your particular system. If you are installing from 5¼-inch diskettes, you will be prompted to remove the first diskette and insert the second.

   A message appears to notify you when the installation of the Context Manager software is complete.
5. Press **Finish** to exit Installation Manager.
6. Remove the diskette from the floppy drive and reboot the system.

Context Manager Required Files

The Context Manager installation process places the files listed in table 3-2 in the <*Sys*> directory of the *[Sys]* volume (*[!Sys]* if you install Context Manager onto the server).

Table 3-2. Context Manager Required Files

File Name	Description
CmInstall.run	run file that loads the Context Manager Service
CmInstallMsg.bin	message file for CmInstall.run
CmVM.run	Context Manager Service (CM Service) run file
CmVMMsg.bin	message file for CmVM.run
CmNull.run	exit run file for contexts running under Context Manager.
CmScreen.run	run file for CM Screen, the default Context Manager user interface, which handles display of the CM Screen ouput
CMScreenMsg.bin	message file for CM Screen.run, the default Context Manager user interface
CmEditor.run	run file for CM Editor. CM Editor is a dedicated Context Manager configuration file editor.
CmConfigMsg.bin	message file for the CM Editor.
CmConfigFrm.Lib	library of forms used by the CM Editor
CmInvoker.run	run file that clears the display and initializes the screen, like the Executive
ICMS.run	run file for the InterContext Message Service (ICMS) (refer to appendix C)
Request.Cm.Sys	loadable request file that defines Context Manager Service requests
CmConfig.Sys	sample Context Manager configuration file. You can edit this file or create other configuration files to include the applications you want to start from Context Manager. If you have previously installed Context Manager and *[Sys]<Sys>CmConfig.sys* already exists on your hard disk, the software installation process does not overwrite it.
Cm.user	sample user file. If you enter the user name CM when you sign on to your system, this file loads Context Manager automatically. If you have previously installed Context Manager and *[Sys]<Sys>Cm.user* already exists on your hard disk, the software installation process does not overwrite it.
CmAPI.Lib	library of API calls you can link with applications that use Context Manager.

Section 4
Configuring and Starting Context Manager

To configure Context Manager, you perform the following operations using the CM Editor:

- access a configuration file
- add applications (commands) to the file
- configure a bitmap and font reserve
- select exit run files
- choose action keys
- configure the default data transfer mode
- exit the configuration file and save your changes

The CM Editor displays a form that prompts you for the necessary configuration information. You can view and edit an existing configuration file or create a new one. When you exit CM Editor, Context Manager updates itself automatically to reflect the changes you made.

In some cases, you must create more than one Context Manager configuration file. For example, if you are configuring Context Manager on a server workstation for use by users on cluster workstations, each user may have their own configuration file.

You can specify a configuration file when you start Context Manager; the procedures at the end of this section show you how to do this using a configuration file you edit or create.

Optionally, you can configure swap files of various sizes by using the CTOS Editor to edit your system's *[Sys]<Sys>Config.sys* file. This section covers the information you enter in this file and the procedure for entering it. (For more on using the CTOS Editor, refer to the *CTOS Editor User's Guide*.)

This section describes:

- accessing the CM Editor
- the CM Editor display and its fields
- adding an application (command) to a configuration file
- supplying bitmap and font reserve information
- exiting the CM Editor
- configuring a swap file
- configuring the default data transfer mode
- starting Context Manager

To practice the configuration procedures, refer to appendix B.

For procedures on changing existing information in a configuration file, refer to section 5.

Some applications require special configuration steps. For special configuration information, refer to appendix C.

Accessing the Configuration File

You use the CM Editor command to access the configuration file.

To access the configuration file through the CM Editor:

1. Type **CM Editor** in the Executive command field.
2. Press **RETURN**.

   The CM Editor command form displays:

```
CM Editor
 [Config File Name]
 [Protected Mode?]
```

3. Choose one of the following:

   - To use the default configuration file, *[Sys]<Sys>CmConfig.sys*, leave the *[Config File Name]* field blank.
   - To create a new configuration file or edit an existing configuration file other than the default, enter the configuration file name.

     *4.**Note:**If the file you specify already exists, CM Editor displays a message prompting you to confirm overwriting the existing file with the new file.*

5. Press **RETURN**.
6. If you are using a protected-mode workstation to edit a configuration file to be used on a real-mode workstation, enter **N** (No) in the *[Protected Mode?]* field. Otherwise, leave this field blank.
7. Press **GO**.

   If you entered the name of an existing configuration file, the CM Editor display appears.

   If you left the *[Config File Name]* field blank, the name of the default configuration file displays in a highlighted field with a message prompting you to enter a configuration file name and press **GO**.

   If you entered the name of a file that does not exist, a message prompting you to confirm creating a file with this name.
8. Choose one of the following:

   - Press **GO** to call up this file or create a file with this name.

     The CM Editor screen appears.
   - Press **CANCEL** to cancel creation of a new configuration file. Context Manager prompts you to enter another file name in the highlighted field.

   The CM Editor screen appears.

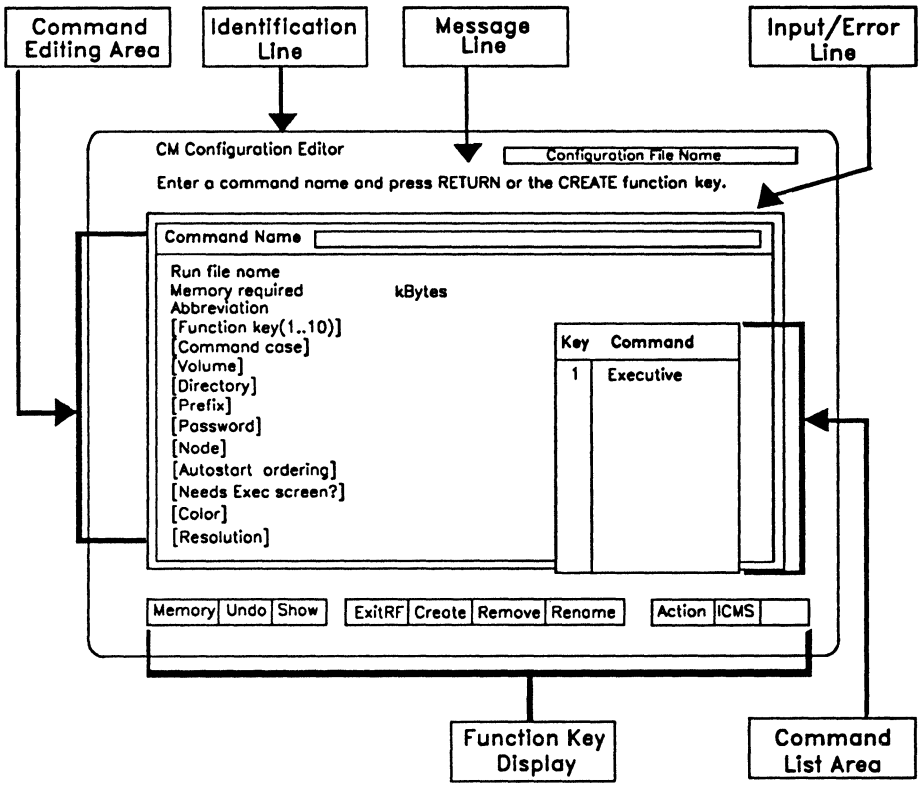
The CM Editor Display

The CM Editor display contains the following areas:

- Identification Line
- Message Line
- Input/Error Line
- Command Editing Area
- Memory Area
- Exit Run File Area
- Action Key Area
- Function Key display
- Command List Area

Details about these areas appear in the subsections that follow. Figure 4-1 shows an example of the CM Editor display with each area labeled. The Memory Area, Exit Run File Area, and Action Key Area are not shown here; they display when you press the appropriate function keys.

Figure 4-1. CM Editor Display (Example)



Identification Line

The top line on the CM Editor display is the Identification Line. On the left side of this line is the program name and version number. On the right is a half-bright field that shows the name of the configuration file you are editing.

Message Line

The line immediately below the Identification Line on the CM Editor display is the Message Line. As you use CM Editor, messages appear on this line to tell you what to do next or give you the status of CM Editor.

For example, when the CM Editor display first appears, the message line displays the message:

```
Enter command name and press RETURN or the CREATE function key.
```

Input/Error Line

The Input/Error Line appears below the Message Line. It serves as an input field when the Message Line prompts you for entries. It also displays error messages during an editing session.

Command Editing Area

The Command Editing Area of the CM Editor display is within a rectangular box surrounded by a double line. It contains fields that you use to add applications (such as word processing or OFIS Mail) and Executive commands (such as **Floppy Copy**) to the Command List. Table 4-1 summarizes the information you can enter in each of these fields. The first three are required; the remaining fields are optional or apply only to certain applications. For more on the information you supply for each application, refer to section 2.

You also use the Command Editing Area to edit, remove, or rename existing commands (refer to section 5).

Context Manager can recognize 30 commands that you define through the CM Editor, and it can manage a maximum of 20 contexts concurrently.

The CM Editor refers to both Executive commands and applications as commands; however, the Context Manager display refers to both as applications.

Table 4-1. Command Editing Area Fields

Field	Description
Command Name	Specify the name of the application you want to add, edit, or remove. If you want to prevent an application from swapping out of workstation memory, you can mark it as memory-resident by adding an exclamation point (!) at the end of the application name. If you want to suspend an application in the background, you can mark it by adding an asterisk (*) at the end of the application name.
Run file name	Specify the full path name of the run file for the application listed in the Command Name field.
Memory required	Enter an amount of memory in KB. To create a variable-sized partition, enter the memory required by the application, preceded by a less than (<) sign. If the run file contains maximum sizing information, you can enter **<0**; the system sizes the partition according to the information in the run file. To create a fixed-sized partition, enter the memory required by the application, without a less than sign. To create a fixed-size partition equal to the size of available memory when the run file is loaded, enter **0**.
[Abbreviation]	You can specify a short name for this application that appears on a function key in the Context Manager display. The default abbreviation is the first six characters of the entry in the Command Name field.
[Function key (0...10)]	To preassign a function key to this application, you enter the number of a function key in this field. The Command List Area shows the function key numbers already assigned. To prevent Context Manager from automatically assigning a function key to a context when you activate it, specify **0** in this field.

continued

Table 4-1. Command Editing Area Fields (cont.)

Field	Description
[Command case]	If the application requires a command case other than 00, enter it here. If you must access this application from the Executive (to supply parameters, for example), you enter CM in this field. An example of this is the Copy command.
[Volume]	You can specify the volume to be set as the default path when the application starts.
[Directory]	You can specify the directory to be set as the default path when the application starts.
[Prefix]	You can specify the file prefix to be used in the default path for the application.
[Password]	You can specify the password to be used as a default by the application.
[Node]	You can specify the node to be used in the default path for the application.
[Autostart ordering]	If you want Context Manager to start this application automatically, enter a number. Assign the number 1 in this field for the first application that Context Manager starts, 2 for the second, and so on up to 9. Applications with the same autostart number are autostarted alphabetically. If you leave this field blank or specify **0**, you must start the application manually from the Context Manager display. If you are using the default user interface, CM Screen, the last application Autostarted is the one that displays when Context Manager finishes autostarting all contexts.
[Needs Exec screen?]	Enter **Yes** for applications that require an Executive display or have parameters configured through the CM Editor More Information feature. (refer to Application Requirements in appendix C).

continued

Table 4-1. Command Editing Area Fields (cont.)

Field	Description
[Color]	You can specify a default color for each command. The colors are the same as those available for the Executive's **Screen Setup** command: green, amber, white, yellow, blue, darkblue, purple, pink, aqua, magenta, lavender coral, and red.
[Resolution]	You can specify resolution settings for individual contexts if your monitor has variable resolution capability. This is useful for applications that require a higher level of screen resolution, such as for graphics programs. Depending on your workstation hardware, you can specify 720x348 (low resolution) or use the default 1024x768 (high resolution). This capability requires a VGA monitor and a VGA graphics slice or VGA graphics card. To find out if your workstation has variable resolution capability, refer to the documentation that came with your workstation and monitor. Entries in the Resolution field have no effect on monitors without variable resolution capability.

Function Key Display

The Function Key display, located at the bottom of the CM Editor display, is divided into sections that correspond to the ten function keys on your keyboard. The functions available depend on the entry you made in the *[Protected Mode?]* field when you started CM Editor. The functions that appear on the Function Key display are available only while you are using the CM Editor.

Table 4-2 describes the functions available from each key if you are editing a configuration file intended for a protected-mode system (that is, you left the *[Protected Mode?]* field blank when you started CM Editor).

Table 4-3 describes the functions available from each key if you are editing a configuration file intended for a real-mode system (that is, you entered **N** (No) in the *[Protected Mode?]* field when you started CM Editor).

Table 4-2. CM Editor Function Keys (Protected-Mode Target)

Key	Function	Result
F1	Memory	The Memory Area appears, allowing you to specify the bitmap and font reserve.
F2	Undo	The system automatically replaces the value in the highlighted field with the previous value for that field.
F3	Show	The Function Keys display what they will show with the current entries when Context Manager is running.
F4	ExitRF	The Exit Run File configuration form appears, allowing you to specify the run files the system executes when exiting the Context Manager Service or user interface. If nothing is specified in this form, the exit run files default to *CmNull.run* for the user interface and *SignOn.run* for the Context Manager Service.
F5	Create	The highlight moves to the Command Editing Area to allow you to enter the information for this command.
F6	Remove	The system removes the command name shown in the *Command Name* field from the Command List Area.
F7	Rename	The system lets you edit the command name shown in the *Command Name* field.
F8	Action	The Action key configuration form appears, allowing you to change the action key designations for Cut, Paste, and Halt operations. You can also disable these features by leaving the appropriate fields blank.
F9	ICMS	The ICMS (InterContext Message Service) editing area appears. For more information on ICMS, refer to appendix C.
F10	More	This command is available after you have entered a name in the Command Name field and pressed RETURN or Create (F5). When you press More, the More Information area appears. Some applications require that you enter additional configuration information here (refer to the application documentation). You can also use this area to specify parameter information to be passed by Context Manager (refer to appendix C).

Table 4-3. CM Editor Function Keys (Real-Mode Target)

Key	Function	Result
F1	Memory	The Memory Area appears, allowing you to specify the bitmap and font reserve.
F2	Undo	The system automatically replaces the value in the highlighted field with the previous value for that field.
F3	Show	The Function Keys display what they will show with the current entries when Context Manager is running.
F4	Check	The system validates your entries and reports any discrepancies on the Input/Error line.
F5	Create	The highlight moves to the Command Editing Area to allow you to enter the information for this command.
F6	Remove	The system removes the command name shown in the *Command Name* field from the Command List Area.
F7	Rename	The system lets you edit the command name shown in the *Command Name* field.
F8	Swap	The system prompts you to identify the swap file for this configuration file.
F9	ICMS	The ICMS (InterContext Message Service) editing area appears. For more information on ICMS, refer to appendix C.
F10	More	This command is available after you have entered a name in the Command Name field and pressed RETURN or Create (F5). When you press More, the More Information area appears. Some applications require that you enter additional configuration information here (refer to the application documentation). You can also use this area to specify parameter information to be passed by Context Manager (refer to appendix C).

Command List Area

The Command List Area is within a box on the right side of the CM Editor display that partially overlays the Command Editing Area. This area shows the commands currently assigned to this particular configuration file and their preassigned function keys, if any. (On the Context Manager display, these commands are listed under Applications you can start.) You do not edit the Command List. It records commands entered in the Command Editing Area during this or previous editing sessions.

The command list can contain a maximum of 30 entries. To view all of the entries, you can scroll the commands in the list by using the keystrokes in table 4-4.

Table 4-4. Command List Area Keys

Keys	Function
SCROLL UP SCROLL DOWN	Scrolls the commands up or down one at a time.
CODE-B or CODE-UP ARROW	Scrolls to the beginning of the command menu.
CODE-E or CODE-DOWN ARROW	Scrolls to the end of the command menu.

Entering Information on the CM Editor Display

On the CM Editor display, you can edit fields in any order. You use **RETURN**, **NEXT**, **UP ARROW**, or **DOWN ARROW** to move the highlight from field to field within an area.

Within a highlighted field, pressing **LEFT ARROW**, **RIGHT ARROW**, **SPACEBAR**, or **BACKSPACE** moves the cursor horizontally; you can also use the usual editing modes, insert or overtype. You can remove the entire entry from a field by using **CODE-DELETE**.

If you press **CANCEL** when the highlight is on any of the fields in the CM Editor display, the system discards your entries or edits and the highlight returns to the *Command Name* field.

Adding Applications

You use the CM Editor to add applications as commands. When you finish adding commands and exit the CM Editor, Context Manager updates itself automatically, adding your commands and enabling you to start your added applications.

You add a command by making entries in the Command Editing Area of the CM Editor display. If you need more information on what to enter, refer to section 2 for an explanation of the required information and table 4-1 for a summary of the fields.

To add an application to the Command List, use the following procedure:

1. Access your configuration file through the CM Editor (refer to Accessing the Configuration File).

   The CM Editor display appears with the highlight in the *Command Name* field.

2. Enter the name of the command (the application you want to add, such as Mail).

3. If you want to prevent Context Manager from swapping the application or if you want to suspend it when it is in the background, choose one of the following:

   - To prevent the application from being swapped, enter an exclamation point (!) following the command name.

     Note: *If the application's run file (the file name you enter in the Run file name field) chains to another run file, you may not be able to disable swapping with an exclamation point. If you are writing an application and want to prevent the application from being swapped, you can include the CTOS call SetSwapDisable.*

   - To suspend the application whenever it is in the background, enter an asterisk(*) following the command name.

     Note: *If you are adding an application that directly manipulates the video, you must suspend it while it is in the background. To find out if your application directly manupulates the video, refer to your application documentation. Refer to appendix C for details.*

4. Press **Create (F5)** or **RETURN**.

5. In the *Run file name* field, enter the name of the run file.

6. In the *Memory required* field, choose one of the following:
   - To create a variable-sized partition that is not to exceed the amount you specify here, enter <nnn, where nnn is the maximum size in KB.
   - To create a variable-sized partition that is not to exceed the maximum size specified in the application's run file, enter **<0** (zero).

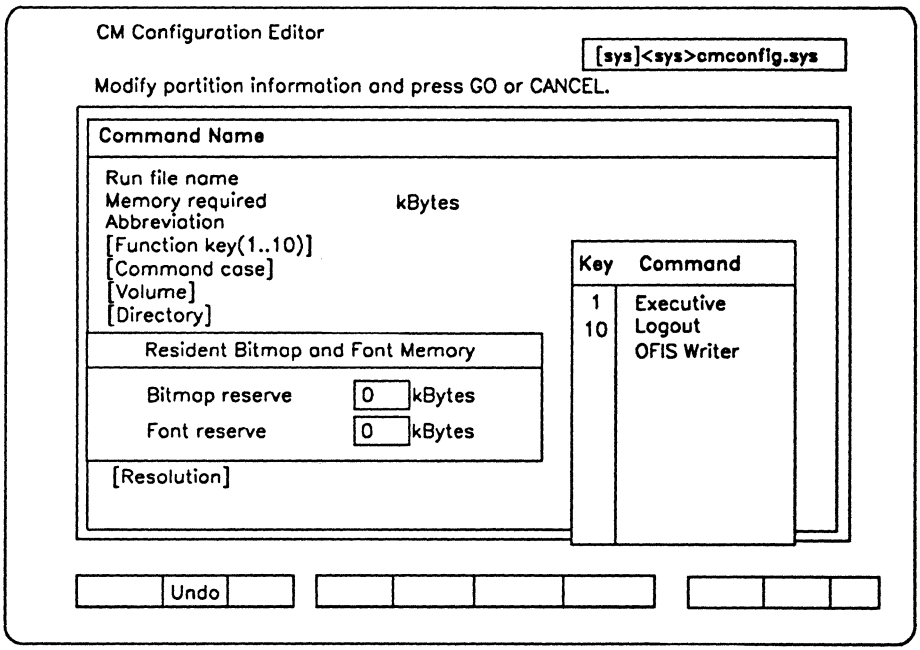
     Note: *Do not enter* **<0** *unless the run file contains sizing information. To determine if a run file contains sizing information, use the Executive command* ***Version****, and specify* ***Y*** *(Yes) for the* [Details?] *parameter. If figures display for the* Min dynamic memory size: *and* Max dynamic memory size: *parameters, the run file contains sizing information. and you can specify* **<0**. *If* <all> *displays for these parameters, the run file does not contain sizing information, and you cannot specify* **<0**.
   - To create a fixed-sized partition of a specific size, enter nnn, where nnn is the size of the partition in KB.
   - To create a fixed-sized partition equal to the size of available memory when the run file is loaded, enter **0** (zero).
7. Fill in any optional configuration parameters you want in the remaining fields (refer to table 4-1) or any special configuration information required by this application. (For any special configuration requirements, refer to your application documentation.)
8. Press **GO** to add the new command.

Supplying Bitmap and Font Reserve Information

To improve the performance of applications that use the bitmap or load their own fonts, you can use the Memory Area of the CM Editor form (figure 4-2) to reserve memory for saving the bitmaps and fonts. For more information, refer to section 2.

The total maximum size of the memory reserved for both bitmap reserve and font reserve should not exceed 1023 KB.

Figure 4-2. Memory Area (Example)



To allocate memory for bitmaps and fonts, use the following procedure:

1. Press **Memory (F1)**.

   The highlight moves to the Bitmap reserve field. (If you are editing this area for the first time, a default value of **0** appears in the field.)

2. Enter the size, in KB, of the bitmap reserve. The maximum value for this field is 1023 KB.

3. In the Font reserve field, enter the size, in KB, of the font reserve. The maximum value for this field is 64 KB.

4. Press **GO**.

Exiting the CM Editor

When have finished editing your Context Manager configuration file, you exit the CM Editor.

To exit the CM Editor, use the following procedure:

1. Press **FINISH**.

   A message appears on the Message Line asking you to confirm that you want to finish this session. The Input/Error Line informs you if there are any errors in your entries.

2. Choose one of the following:

   - If you want to save the configuration file and exit the CM Editor, press **GO**.
   - If you do not want to exit and want to continue editing the configuration file, press **CANCEL**.
   - If you want to ignore the changes you made to the configuration file, press **FINISH** again.

If you pressed **GO**, Context Manager updates it self automatically to reflect the changes you made.

Configuring a Swap File

Context Manager uses a swap file to store application data if it cannot load another context into memory. You have two alternatives in selecting a swap file to use with Context Manager: You can either use an exiting file on your system, *CrashDump.sys*, or you can create a swap file.

If you decide to create a swap file, before you create it, determine the size it needs to be based on an estimate of the number of contexts you may need to swap. For information on how to do this, refer to section 2.

Note: *If you are using the Cache utility, you can swap to upper memory, which is faster than swapping to disk. For more information on using the Cache utility, refer to the* CTOS System Administration Guide.

Using CrashDump.Sys as the Swap File

CrashDump.sys is a file the operating system creates to store system information in the event of a system failure. Using *CrashDump.sys* as your swap file is efficient because it allows the system to use disk space that would otherwise remain unused except in the event of a system failure.

If you decide to use *CrashDump.sys* as your swap file and your signon user file automatically loads Context Manager, you should create an alternate user file that does not load Context Manager automatically when you sign on. This is because after a system failure, the boot sequence writes the contents of memory to *CrashDump.sys*, and if you experience a system failure, you (or your system administrator) may need to sign on and examine the contents of the *CrashDump.sys* file to determine the cause of the failure.

> **Caution:**
>
> If you use CrashDump.sys as your swap file, do not sign on after a system failure with a user name that automatically loads Context Manager. If Context Manager swaps an application, it overwrites the contents of CrashDump.sys.

Creating a Swap File

If you do not want to use *CrashDump.sys* as your swap file, you can use the **Create File** to create another file to use as a swap file. Specify that file as the swap file when you edit *Config.sys* (refer to Specifying a Swap File in this section).

Specifying a Swap File

You specify the swap file you want to use by editing the system configuration file, *[Sys]<Sys>Config.sys* (or *wsnnn>config.sys*, for a cluster workstation that boots from the server). You specify the name, size, and maximum size of the swap file. After you finish editing *Config.sys* or *wsnnn>config.sys*, you must reboot the system for the changes to take effect.

Use the CTOS Editor to edit the appropriate system configuration file. For information on using the CTOS Editor, refer to the *CTOS Editor User's Guide*. Use the following procedure:

1. Start the CTOS Editor and choose one of the following:
   - To configure a swap file for a workstation that boots locally, open the *[Sys]<Sys>Config.sys* file
   - To configure a swap file for a workstation that boots from the server, open the *[!Sys]<Sys>wsnnn>Config.sys* file, where *nnn* identifies the cluster workstation CPU type (for more information, refer to the *CTOS Sytem Administration Guide*).
2. Add the following entry to the file:

   ```
   :SwapFile:
   ```

3. Following `:SwapFile:` and on the same line, add the full path name of the swap file you want to use. For example, if you are using *[Sys]<Sys>CrashDump.sys,* the completed entry looks like this:

   ```
   :SwapFile:[Sys]<Sys>CrashDump.sys
   ```

4. To specify the size of the swap file, add the following entry to the file, replacing the size with the size (in sectors) of the swap file you are using (the default swap file size is 2048 sectors (1024 KB)):

   ```
   :SwapFileSize:2048
   ```

5. The operating system enlarges the swap file if it needs to. To specify the maximum size that it can enlarge the swap file to, add the following entry to the file (replace the size with the size (in sectors) you want):

   ```
   :SwapFileSizeMax:4096
   ```

   Note: *This parameter has no effect if your swap file is [Sys]<Sys>CrashDump.sys.*

6. You can specify an alternate swap file that the system can use if it cannot access the primary one. The default alternate swap file is *[Sys]<Sys>SwapArea00.sys*. The system increments *00* to *01*, *02*, and so on if *SwapArea00* is in use. This ensures that cluster workstations using alternate swap files on the server will each have their own swap file). To specify an alternate swap file, add the following entry:

   ```
   :SwapFileAlternate:[Sys]<Sys>SwapArea00.sys
   ```

7. Press **FINISH** and **GO** to save your changes and exit the CTOS Editor.

If the file specified in the `:SwapFile:` field cannot be accessed or created, the operating system searches for and, if necessary, creates a swap file named *[sys]<sys>SwapAreann.sys*, where *nn* represents a value of 00, which it increments to 01, 02, and so on, to give each workstation in the cluster a unique swap file.

If some of the workstations in your cluster boot from the server, all workstations of the same processor family use the same system configuration file, which is in the format *[!Sys]<Sys>WSnnn>config.sys*, where *nnn* identifies a workstation processor family. Because the operating system can create a unique swap file in the format *[Sys]<Sys>SwapAreann.sys*, each workstation in the cluster will use a unique swap file even though they may use the same system configuration file.

To specify a particular swap file for a workstation that boots from the server, edit the system configuration (*[!Sys]<Sys>WSnnn>config.sys*) file that corresponds to the workstation's processor family. The processor families are listed in the *CTOS System Administration Guide*.

Swapping to Upper Memory

To locate your swap file in upper memory, you must install the Cache utility before you install Context Manager. For more information on using Cache, refer to the *CTOS System Administration Guide*).

Configuring Cache for Use with Context Manager

The Cache utility stores often-accessed files in memory rather than on disk, providing faster access and increased system performance.

For best performance with Context Manager, you should specify a cache size equal to or greater than the size of your swap file.

To determine the size of your swap file, use the following procedure:

1. At the Executive command line, type **Files** and press **RETURN**.

   The **Files** command form displays.

2. Type the name of your swap file in the *[File list]* field and press **RETURN**.

3. Specify **Yes** in the *[Details (?)]* field and press **GO**.

   The system displays the size of your swap file. Note the size in sectors and create a cache of equal or greater size. For the procedures on using and configuring the Cache utility, refer to the *CTOS System Administration Guide*.

Configuring the Default Data Transfer Mode

Using the CM Editor, you can configure the default data transfer mode for each application listed in the CM configuration file. This mode is used when the associated application receives data.

To configure the default data transfer mode, you display the application command information, add a new keyword and value to the More Information form, and specify one of the values shown in table 4-5.

To configure the default data transfer mode for an application, use the following procedure

1. Start the CM Editor.
2. Enter the name of the application in the *Command Name* field.
3. Press **GO**.
4. Press **F10 (More)**.

   The More Information form appears.
5. Enter the token:

   ```
   :DefaultDataXferMode:n
   ```

   n represents the default data transfer mode value. (Refer to table 4-5.)
6. Press **GO**.
7. Press **FINISH-GO** to exit the CM Editor and save your changes.

Table 4-5. Data Transfer Mode Parameter Values

Data Transfer Mode	Parameter Value
Line	1
Word	2
Block	3
Multiplan	4
Spreadsheet	5

Starting Context Manager

Before you start Context Manager, you must load any system services (for example, Spooler and Queue Manager). Refer to the *CTOS System Software Installation and Configuration Guide* for information on loading system services.

You can start Context Manager two ways:

- through the Executive, using the **Install Context Manager** command
- through the SignOn form, using a user file configured to automatically start Context Manager when you sign on.

Determine how you want to start Context Manager and use the following procedures to configure your system.

Using the Install Context Manager Command

To start Context Manager from the Executive command line, use the following procedure:

1. Type **Install Context Manager** in the Executive command field.
2. Choose one of the following:
   - To use the default configuration file, *[Sys]<Sys>CmConfig.sys*, and the default user interface, CM Screen, press **GO**.

     Context Manager loads. Skip steps 3 and 4 of this procedure.
   - To use a configuration file other than the default, press **RETURN**.

     The following Install Context Manager form appears:

     ```
     Install Context Manager
       [Config File Name]
       [CM Interface File Name]
       [Partition Size(K)]
       [Initialize Screen?]
     ```

     Refer to table 4-6 for a description of the parameters.
3. Choose one or more of the following:
   - If you want to use a configuration file other than the default, enter its name in the *[Config File Name]* field.
   - If you want to use a user interface other than the default, enter the name of its run file in the *[CM Interface File Name]* field.
   - If you want to use a partition size other than the default, enter the size you want in the *[Partition Size (K)]* field.
   - If you are using a customized user interface written in the C or Pascal programming language, enter **Yes** in the *[Initialize Screen?]* field.
4. Press **GO**.

   Context Manager starts.

Table 4-6. Install Context Manager Command Parameters

Parameter	Description
[Config File Name]	This parameter allows you to specify the Context Manager configuration file name. The default entry is [sys]<sys>CMConfig.sys.
[CM Interface File Name]	This parameter allows you to specify the Context Manager user interface. The Context Manager Service will, by default, load the CM Screen runfile. You can specify the runfile name of any custom user interface designed to be compatible with the Context Manager Service.
[Partition Size(K)]	This parameter allows you to specify the partition size of the Context Manager user interface. The partition size must be six characters or fewer in length. If an exit runfile other than the default *cmNull.run* is specified in the *Interface Exit Run File* field of the Exit Run File form within the CM Editor, the partition size specified here should be large enough to accomodate the exit runfile. For information on specifying an exit run file, refer to section 5.
[Initialize Screen?]	This parameter allows you to determine whether the Context Manager Service will initialize the screen for the user interface. Initialization is equivalent to the initialization that occurs if you start a context after specifying **Yes** for that context in the *[Needs Exec Screen?]* parameter of the CM Editor display. The default for this parameter is **No**. You should specify **Yes** if the Context Manager user interface is written in the C or Pascal programming language.

Starting Context Manager at Sign-On

You can configure a user file to automatically start Context Manager when you sign on. If you decide to start Context Manager automatically when you sign on, you must edit your system's *SysInit.jcl* file to start any system services your system requires; you cannot start system services after you start Context Manager. For information on loading system services automatically, refer to the *CTOS System Software Installation and Configuration Guide* .

Using the Sample Context Manager User File (CM.user)

The Context Manager installation process copies a sample user file, *CM.user*, to your hard disk. *CM.user* starts Context Manager automatically. You can refer to figure 4-3 to see what *CM.user* looks like.

If you want to see *CM.user* start Context Manager automatically, use the following procedure:

1. Choose one of the following:

   If you have already signed on to your system and are using an application, exit the application.

   If you are at the Executive command line, type **Logout** and press **GO**.

   If your system is displaying the Sign-On form, go to step 2.

2. Type **CM** in the *User name* field of the Sign-On form.

3. If you have a system password, press **RETURN** and enter it in the *Password* field.

4. Press **GO**.

   The CM Screen displays and the default applications are listed in the Applications you can start menu (unless you have changed the default Context Manager configuration file). For information on the CM Screen display, refer to the *CTOS Context Manager II Operations and Training Guide.*

5. When you have finished viewing the CM Screen, use the arrow keys to move the highlight to the **Logout** application and press **GO**.

   The Sign-On form displays.

6. Sign on as you normally would.

For information on how to configure Context Manager to include the applications you want to use, refer to Accessing the Configuration File in this section.

Editing an Existing User File to Start Context Manager Automatically

You can edit an existing user file to so that it starts Context Manager automatically. For information on editing user files, refer to the *CTOS System Software Installation and Configuration Guide.*

To edit an existing user file to so that it starts Context Manager automatically, add the following block of entries:

```
:SignOnChainFile:[Sys]<Sys>CmInstall.run
'Install Context Manager'
[volume]<directory>ConfigFileName
[volume]<directory>UserInterfaceName
PartitionSize
InitializeScreen
```

The first two entries are required; the last four are optional. For an example of how the block of entries should look in a user file, refer to figure 4-4.

User File Optional Entries

If you are using a Context Manager configuration file other than the default, *[Sys]<Sys>CMConfig.sys*, specify its full path name as the third line of the block of entries.

If you are using a Context Manager user interface other than the default, CM Screen, specify the full path name of the run file as the fourth line of the block of entries.

If you want to specify a partition size other than the default, specify the size (in KB) as the fifth line of the block of entries.

If you are using a Context Manager user interface written in the C or Pascal programming languages, specify **Yes** as the sixth line of the block of entries.

Figure 4-3. CM.User File

```
:SignOnVolume:Sys
:SignOnDirectory:sys
:SignOnFilePrefix:
:SignOnPassword:
:SignOnExitFile:[sys]<sys>SignOn.run
:SignOnChainFile:[sys]<sys>cmInstall.run
'Install Context Manager'
[sys]<sys>cmConfig.sys
:ExecCmdFile:[sys]<sys>sys.cmds
```

Figure 4-4. Sample User File That Starts Context Manager at Sign-On

```
:SignOnVolume:Sys
:SignOnDirectory:sys
:SignOnFilePrefix:
:SignOnPassword:
:SignOnExitFile:[sys]<sys>SignOn.run
:SignOnChainFile:[sys]<sys>cmInstall.run
'Install Context Manager'
[sys]<sys>DanaConfig.sys
[sys]<PMRun>PMShell.run
1024
:ExecCmdFile:[sys]<sys>sys.cmds
```

Section 5

Changing Your Context Manager Configuration

Over time, you may need to change your Context Manager configuration to add, remove, or change applications. You change your Context Manager configuration by making changes to your Context Manager configuration file using any of three methods:

- the CM Editor
- Executive commands
- the CTOS Editor

This section describes how to use all three methods to make changes to your configuration file.

Changing the Configuration With the CM Editor

The CM Editor provides several editing options:

- You can edit existing information for an application or enter a new application by entering the command name and changing the *Command Editing Area* fields.
- You can edit existing bitmap and font reserve memory information by pressing **Memory (F1)** and changing the *Memory Area* fields.
- You can change the run files the system executes when exiting the Context Manager Service or user interface by pressing **ExitRF (F4)** and entering run file names in the *Exit Run File* fields.
- You can use **Remove (F6)** to remove a command from the Command List.
- You can use **Rename (F7)** to change the name of a command in the Command List.

- You can change the action key designations for the Cut, Paste, and Halt operations or disable these features entirely by pressing **Action (F8)** and editing the *Action Character* fields.
- You can enter InterContext Message Service (ICMS) configuration information by pressing **ICMS (F9)** and editing the *ICMS* fields. Refer to appendix C for details on configuring ICMS.

Use the procedures in the following subsections to edit application information, remove or rename applications, and otherwise change your Context Manager configuration through the CM Editor. When you complete an editing session, exit the CM Editor using the procedure in section 4, Configuring and Starting Context Manager.

Changing Application Information

You can use the CM Editor to change all or part of the application information in a Context Manager configuration file. You make these changes in the Command Editing Area of the CM Editor form. (For more on determining what information to enter, refer to section 2, Planning Your Context Manager Configuration.)

To use the CM Editor to change application information, use the following procedure:

1. Start the CM Editor and open your configuration file (refer to Accessing the Configuration File in section 4).

   The CM Editor screen appears with the highlight in the *Command Name* field.

2. Enter the name of the command you want to change.

   You do not have to type the entire name of the command; if you type an unambiguous abbreviation of the command, CM Editor displays the command for you.

   If you enter a command name that does not match any name on the Command List, the CM Editor creates a new command name from your entry.

3. Press **RETURN**.

   The information previously entered for this command appears in the fields of the Command Editing Area, and the highlight moves to the first field.

4. Edit the command fields, using **RETURN, NEXT, UP ARROW,** or **DOWN ARROW** to move the highlight from field to field. Use **DELETE, CODE+DELETE** or **BACKSPACE** to change your entries.
5. With the highlight in any field, press **GO** to record your changes.

   If you change a preassigned function key number, the change appears in the Command List Area.

   If you are using the CM Screen as your user interface, changes to the application information take effect as soon as you exit the CM Editor.

Changing An Exit Run File

An exit run file is a run file specified by a program to be loaded into memory in its place when that program terminates. For example, the default exit run file for the Context Manager Service is *[Sys]<Sys>Signon.run*. When the Context Manager Service terminates, it is replaced by the SignOn screen.

You can use the CM Editor to change the exit run file for the Context Manager Service and your user interface.

To change an exit run file, use the following procedure:

1. Start the CM Editor and open your configuration file (refer to Accessing the Configuration File in section 4).

   The CM Editor screen appears.
2. Press **ExitRF (F4)**.

   The Exit Run File form appears.
3. Move the highlight to the field corresponding to the exit run file you want to change.

4. Edit the field, using **CODE-DELETE** or **BACKSPACE** to delete any existing entries, and enter the name of the new exit run file.

   Note: *If you leave an Exit Run File field blank, Context Manager uses the default exit run files CmNull.run for the user interface and SignOn.run for the Context Manager Service.*

5. Press **GO** to record your changes.

   The Exit Run File form disappears. The new Exit Run File takes effect the next time you start Context Manager.

Changing Memory Information

You can use the CM Editor to change the amounts of memory reserved for bitmaps and fonts by making changes to the Memory Area of the CM Editor form. (For information on determining what information to enter, refer to section 2, Planning Your Context Manager Configuration.) (For information on changing the amount of memory allocated in a partition to run an application, refer to Changing Application Information.)

To change information in the Memory Area, use the following procedure:

1. Start the CM Editor and open your configuration file (refer to Accessing the Configuration File in section 4).

   The CM Editor screen appears with the highlight in the *Command Name* field.

2. Press **Memory (F1)** to display the Memory Area form.

3. Edit the Memory Area fields, using **RETURN**, **NEXT**, **UP ARROW**, or **DOWN ARROW** to move the highlight from field to field. Use **DELETE**, **CODE+DELETE** or **BACKSPACE** to change your entries.

4. Press **GO** with the highlight in any field to record your changes.

   The Memory Area form disappears from the CM Editor display and the cursor returns to the *Command Name* field.

   Changes to the Memory Area take effect the next time you start Context Manager.

Removing an Application

You can use the CM Editor to remove an application from your Context Manager configuration.

To remove an application, use the following procedure:

1. Start the CM Editor and open your configuration file (refer to Accessing the Configuration File in section 4).

   The CM Editor display appears with the highlight in the CM Editor *Command Name* field.

2. Enter the name of the application you want to remove.

3. Press **Remove (F6)**.

   The information for the application appears in the Command Editing Area, and a message appears asking you to confirm this deletion.

4. Press **GO**.

   The CM Editor removes the command name from the list. If you press **CANCEL** instead of **GO**, the command remains on the Command List.

Renaming an Application

The CM Editor allows you to change the command name of an application.

To change the command name of an application:

1. Start the CM Editor and open your configuration file (refer to Accessing the Configuration File in section 4).

   The CM Editor display appears with the highlight in the *Command Name* field.

2. Enter the name of the command you want to rename.

3. Press **Rename (F7)**.

4. Delete the existing command name by pressing **CODE+DELETE** or **BACKSPACE**.

5. Enter the new name for this command in the *Command Name* field.

6. Press **GO**.

   The highlight moves to the *Run file name* field. You can edit this or any of the other command fields (refer to Changing Application Information).

7. Press **GO** to record the command name change.

   The new name replaces the old one in the Command List.

Changing the Cut, Paste, and Halt Action Keys

You can use the CM Editor to change the letters of the **Action +** keys designated for the Cut, Paste (data transfer), and Halt operations, or you can disable these features by eliminating their **Action +** key designations.

To change the **Action +** key designation for the Cut, Paste, or Halt operation:

1. Start the CM Editor and open your configuration file (refer to Accessing the Configuration File in section 4).

   The CM Editor screen appears.

2. Press **Action (F8)**.

   The Action Key Character form appears.

3. Move the highlight to the character field of the **Action +** key operation you want to change.

4. Press **DELETE** to delete the existing key character.

   Choose one of the following:

   - If you want to change the action key designation, enter a new key character.
   - If you want to disable the action key operation, leave the field blank.

5. Press **GO**.

   The Action Key Character form disappears.

Changes to the Cut, Paste, or Halt action key designations take effect the next time you start Context Manager.

You can also change or disable these keys by editing the Context Manager configuration file through the CTOS Editor. The values for these features correspond to the `:ActionCut:`, `:ActionPaste:`, and `:ActionHalt:` tokens. If the values for these tokens are removed, these features are disabled. If the tokens and the values are both removed, these features will be enabled with the default values.

Changing the Configuration with Executive Commands

You can change the Context Manager configuration file contents through the Executive, without using the CM Editor. You can use any of the three Executive commands the system creates when you install the Context Manager software:

- CM Add Application
- CM Remove Application
- CM Modify Info

After you enter any of the three commands, you press **RETURN**. An Executive command form displays, with one or more fields in which you can enter information. Optional fields appear in square brackets.

To look at the contents of a Context Manager configuration file through the Executive rather than the CM Editor form, you use the Executive command **Type**.

Adding an Application

The Executive command **CM Add Application** lets you add an application to a configuration file or edit an existing application. It is similar to the Executive command **New Command** (used to create Executive commands) and is helpful when you install new software. The command form is:

```
CM Add Application
  [Config File Name]
  Application
  Run file
  Memory required
  [Abbreviation]
  [Function key]
  [Command case]
  [Volume]
  [Directory]
  [Prefix]
  [Password]
  [Node]
  [Autostart ordering]
  [Needs Exec screen?]
  [Overwrite OK?]
  [More information]
  [Color]
  [Resolution]
```

The fields in this form are similar to the fields in the CM Editor (refer to section 4, Configuring Context Manager). You must make entries in the following fields:

Application

The *Application* field refers to the command name you wish to assign to the application. If the name in the *Application* field includes spaces, enclose the entire name in single quotation marks. For example: **'OFIS Mail'**.

Run file

In the *Run file* field, enter the full path name of the application run file.

Memory required

In the *Memory required* field, enter the size of the partition you want the application to run in.

The default configuration file is *[Sys]<Sys>CmConfig.sys*. The *[Overwrite OK?]* field lets you overwrite old information about a command with new information.

If you do not supply path or Autostart information when you overwrite an existing application, the previous path or Autostart information remains the same.

If you are using the CM Screen as your user interface, applications added through this command immediately appear on the Applications you can start menu.

Removing an Application

The Executive command **CM Remove Application** lets you remove an application from a configuration file. It is similar to the Remove Command command in the Executive. The command form is:

```
CM Remove Application
  Application
  [Config File Name]
```

The *Application* field refers to the command name you assigned the application. The default configuration file is *[Sys]<Sys>CmConfig.sys*.

If you are using the CM Screen as your user interface, applications removed through this command immediately disappear from the Applications you can start menu.

Modifying Other Information

The Executive command **CM Modify Info** lets you modify other configuration file information. The command form is:

```
CM Modify Info
   [Config File Name]
   [Swap file]
   [ICMS file]
   [Number of messages]
   [Size of messages]
   [Reserve]
   [Maximize all?]
   [Number of partitions]
   [Size(s) of partitions]
   [More info]
```

The default configuration file is *[Sys]<Sys>CmConfig.sys*. All other fields default to the existing value in the specified configuration file.

Changes made to the information modified with this command take effect the next time you start Context Manager.

Changing the Configuration Using the CTOS Editor

In addition to the CM Editor and the CM Executive commands, you can also use the CTOS Editor to make changes to your Context Manager configuration file.

The Context Manager configuration file consists of lines of keywords and values, in the following format:

```
:Keyword:Value
```

A keyword indicates a configurable parameter of Context Manager; a value is the value you assign to it, such as a file name or an amount of memory. Keywords must begin in column 1, and values must immediately follow the colon after the keyword. The keywords for the commands are similar to those in the CM Editor (refer to section 4, Configuring Context Manager).

The first group of keywords and values is part of the Context Manager configuration header information; all subsequent groups represent each command you add with the CM Editor. Figure 5-1 shows the default Context Manager configuration file, *CmConfig.sys*, which the installation process copies to your hard disk when you install Context Manager.

For information on using the CTOS Editor, refer to the *CTOS Editor User's Guide*.

To change the configuration file using the CTOS Editor, use the following procedure:

1. Enter **Editor** in the Executive command field.
2. Press **RETURN**.
3. Enter the name of the configuration file in the *[File Name(s)]* field.
4. Press **GO**.
5. Change the configuration file by entering new values for any of the keywords. Observe the following rules:
   - The value for the *:SizeOfMessage*: keyword can be up to 2048 bytes; the default is 200 bytes.
   - Specify a value for the *:MemorySize*: keyword in kilobytes (KB).
   - The Command descriptions are assumed to be in sorted order.
   - Do not follow a colon immediately with a space.
6. When you have finished editing the file, press **FINISH-GO** to save it and exit the CTOS Editor.

Figure 5-1. Sample Context Manager Configuration File

```
:SwapFile:
:ICMSFile:
:NumberOfMessages:1
:SizeOfMessage:200
:ResidentBitmapMemory:0
:ResidentFontMemory:0
:ActionCut:C
:ActionPaste:P
:ActionHalt:S
:CMExitRunFile:
:InterfaceExitRunFile:
:DebuggerSize:0
:TargetMemory:1024
:NumberOfPartitions:1
:PartitionSize:300
:MaximizeAll:y

:CommandName:Executive
:RunFileName:[sys]<sys>Exec.run
:CommandAbbreviation: Exec
:MemorySize:300
:CommandCase:00
:FunctionKey:1
:Autostart:0
:Invoker:n
:Volume:
:Directory:
:Prefix:
:Password:
:Node:
:Color:green
:Resolution:1024x768
```

Figure 5-1. Sample Context Manager Configuration File (continued)

```
:CommandName:Logout
:RunFileName:[sys]<sys>SignOn.run
:CommandAbbreviation:Logout
:MemorySize:125
:CommandCase:00
:FunctionKey:10
:Autostart:0
:Invoker:n
:Volume:
:Directory:
:Prefix:
:Password:
:Node:
:Color:green
:Resolution:1024x768

:CommandName:OFIS Writer
:RunFileName:[sys]<sys>OWP4.run
:CommandAbbreviation: W P
:MemorySize:<300
:CommandCase:
:FunctionKey:
:Autostart:0
:Invoker:n
:Volume:
:Directory:
:Prefix:
:Password:
:Node:
:Color:green
:Resolution:1024x768
```

Figure 5-1. Context Manager Configuration File (Example) (continued)

```
:CommandName:Partition Status
:RunFileName:[sys]<sys>SystemMgr.run
:CommandAbbreviation: P S
:MemorySize:250
:CommandCase:PS
:FunctionKey:
:Autostart:0
:Invoker:n
:Volume:
:Directory:
:Prefix:
:Password:
:Node:
:Color:green
:Resolution:1024x768
```

Appendix A

Status Codes and Messages

This section describes status codes and messages for CTOS Context Manager. You can use this information for troubleshooting.

Status Codes

2440 This application must be invoked through the Executive program; edit the configuration file.

Note: *Status Code (2440) has a slightly different meaning for Context Manager than for operating system errors.*

2441 A parameter contains an invalid value.

12000 A specified parameter does not exist.

12001 No such partition handle.

12002 Configuration buffer too small.

12003 No such context handle.

12004 No such command.

12005 Information block size too large.

12006 A context cannot call CMTerminateContext to terminate itself.

12007 Using start by block, missing command name.

12008 Using start by block, command name too long.

12009 Using start by block, missing run file.

12010 Using start by block, run file name too long.

12011 Using start by block, missing memory size.

12012 No such parent context handle.

12013 Cannot change parent to self.

12014 Cannot switch to locked context.

12015 Cannot adopt parent or grandparent context.

12020 This application is not reading the keyboard.

This status indicates that the application selected to receive the pasted data has been suspended or halted. Applications in this state cannot read the keyboard and therefore cannot receive pasted data.

12021 Cannot paste to a submit program.

12022 Paste is already in progress.

12023 Invalid data transfer parameters.

12024 This context cannot terminate the child context.

12025 No function key for this context.

12026 A user interface for Context Manager has already been registered.

12027 Not a registered Context Manager user interface.

12029 Cannot start shared video child context.

12030 Cannot suspend or resume child context.

12031 The caller has missed an event it should have received from CMReadContextEvent.

To obtain current context information, the caller should issue a call to CMQueryOtherContexts.

12035 Data transfer is not supported from this application.

This status message indicates that the application does not have the necessary keyboard tables to transfer data.

12057 The swap file is full -- cannot swap any more contexts.

12084 The run file needed for this application does not exist.

12085 You cannot start any more contexts; maximum is 20.

12086 There is no context to return to.

12087 The swap file is full -- cannot swap any more contexts.

12088 The run file is too large to run in any partition.

12089 You cannot logout; there are contexts which must be finished.

12090 Warning: There are unfinished contexts. Press GO to logout or CANCEL to deny.

12091 This context cannot be finished from the Context Manager.

12092 The file specified as your swap file does not exist.

12093 You can run only one graphics application at a time.

12094 Cannot start an additional video-controlling application.

12095 There is no current context.

12096 An existing context cannot be swapped out to start a new application.

12097 There is not enough room in the swap file to swap the highlighted context.

12099 Context Manager is not installed.

12100 ICMS is already installed.

12101 ICMS internal error.

12102	Cannot open the ICMS Disk Message file.
12103	ICMS: No message available.
12104	ICMS: No free messages.
12105	ICMS: Not implemented.
12106	ICMS: The message sent was too long.
12107	ICMS: This context is already waiting for messages.
12108	ICMS is not installed.
12109	Incorrect version or missing Request.CM.sys.
40001	Context Manager inconsistency, suggest you save all contexts.
40002	Internal error: Wrong exchange.
40003	Internal error: Region status inconsistency.
40004	Internal error: Swap file inconsistency.
40005	Internal error: Too many swaps.
40006	Internal error: Invalid line indices specified for a map switch.
40007	Internal error: Swap count invalid.
40008	Internal error: Unknown context status.

Status Messages

Status messages that may appear during use of Context Manager are described below. The error code, if any, is shown in parentheses.

`Not enough memory in this partition to run this application. (Error 400)`

When you select an application to start and press **GO**, the Context Manager message area says `Loading ...` then `Finishing ...` and then may give this error.

This error occurs when Context Manager tries to start an application in a partition that is too small for the application. The number specified in the *Memory Required* field of the Context Manager configuration file is too small for that application. You edit the Context Manager configuration file to change the entry in the *Memory Required* field for that application.

When you finish editing the configuration file, save the changes to it. If you are using the default Context Manager interface, the configuration is updated automatically.

`Not enough memory. (Error 400)`

This error can occur if you enter a command from the Executive and the partition running the Executive is too small to support the particular program started by the command. For example, you may have created a command named MAIL which starts the OFIS Mail Manager program. Instead of increasing the number you specify in the Executive partition's *Memory Required* field to accommodate MAIL, you can add MAIL as a separate application to your Context Manager configuration file and start it through Context Manager rather than the Executive.

When you finish editing the configuration file, save the changes to it. If you are using the default Context Manager interface the configuration is updated automatically.

```
This version of the OS cannot support any more contexts.
(Error 801)
```

When you try to start a new application from the Context Manager screen, this message may display.

Refer to the *CTOS Context Manager II Programming Guide* for an explanation of how to generate a new version of the operating system that supports more contexts.

```
A context in memory cannot be swapped out.  (Error 813)
```

A context in memory cannot be swapped out because it still has requests outstanding after swapping requests have been issued by the operating system. This error is usually caused by system services that do not handle swapping correctly.

Either wait until the context in memory is finished, or finish the context that is in memory, and then try to switch your context again.

Note: *This message and the next are the same, but have different error codes and slightly different meanings.*

```
A context in memory cannot be swapped out.  (Error 815)
```

A context in memory cannot be swapped out because it has served a request, served interrupts, or has a communication or parallel printer resource in use.

Either wait until the context in memory is finished, or finish the context that is in memory, and then try to switch your context again.

```
This application must be invoked through the Exec; edit the
Config File.
```

The application you have chosen requires that you enter a parameter or parameters that should be supplied from the Executive, by means of an Executive command form.

Use the CM Editor to edit your Context Manager configuration file. Display the information for the application. Change the entry in the Run file to *[Sys]<Sys>Exec.run*. Change the entry in the *[Command case]* field to **CM**. Save the configuration file changes.

```
An existing context cannot be swapped out to start a new
application.
```

If you select a new application and press **GO**, the above message may appear. This means that all memory partitions into which the new application would fit are already occupied by contexts that are not allowed to swap out.

Either wait until the context(s) in memory are finished, or finish a context that is in memory, and then try to start your application again.

```
You cannot activate a data transfer session from a graphics
context.
```

This message appears if you press the **Action** + key character configured to start a data transfer (cut and paste) session from a context that has registered itself to the Context Manager Service as a graphics context.

You must select data from a context not registered as a graphics context.

```
The data transfer feature has been disabled.
```

One or both action characters used to transfer data are disabled.

To configure the action characters, use the CM Editor to edit your Context Manager configuration file. Press **Action (F8)** to display the action key character form, and then enter a new character in the desired character field.

Appendix B
Tutorial for Configuring Context Manager

This tutorial gives you practice in configuring Context Manager. Each exercise takes 15 minutes or less. By doing the exercises, you create a file with the configuration needed for doing the exercises in the *CTOS Context Manager II Operations Training Guide.*

Note: *The configuration created by these exercises is designed for use with the CM Screen as your Context Manager user interface.*

You create your Context Manager configuration in one of three ways:

- edit the default configuration file that comes with the software
- copy the default configuration file and edit the copy
- create a new configuration file

In this tutorial, you use the third way. However, you first access and view the default configuration file, to see what it contains.

You do the following tasks:

- view the default configuration file
- create a training configuration file
- enter the application information
- save your edited file and view the results
- create a training user file that automatically activates the training configuration

You can stop the exercises at any time by exiting the CM Editor. The exit procedure gives you three choices: save your configuration entries, discard them, or cancel the exit procedure and return to editing. Refer to Exiting the CM Editor in section 4 for details.

Exercise 1: Accessing an Existing Configuration File

You can view and edit an existing configuration file or create a new one with the CM Editor command. The command form is:

```
CM Editor
  [Config File Name]
  [Protected Mode?]
```

The *[Config File Name]* default is *[Sys]<Sys>CmConfig.sys*.

The entry in the *[Protected Mode?]* field depends on the type of workstation you will use the configuration file on. For this exercise, leave this field blank.

In this exercise you practice accessing the default configuration file with the CM Editor, viewing some of its contents, then exiting the CM Editor without changing the file.

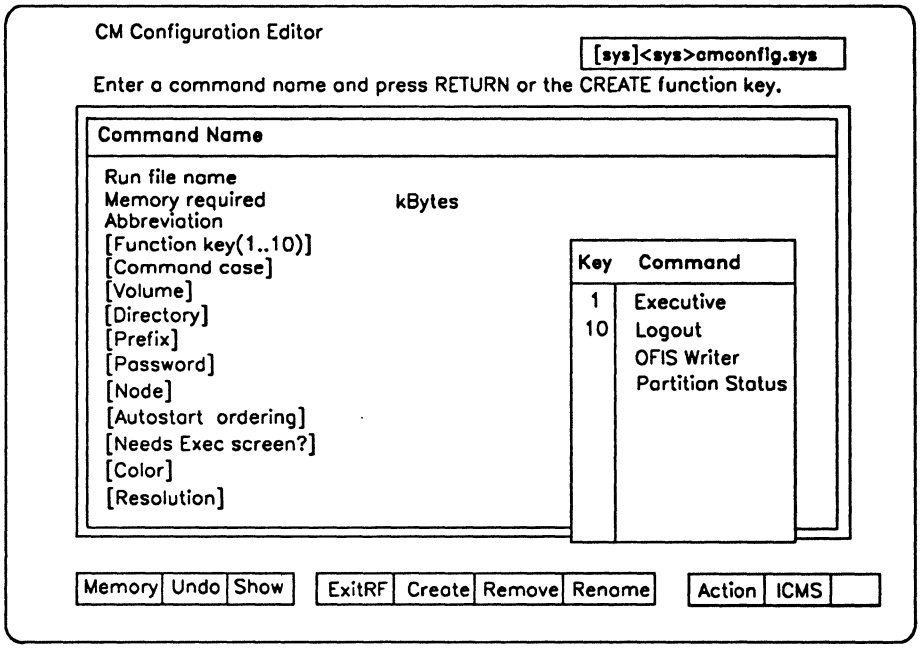
To access the default configuration file, use the following procedure:

1. Enter **CM Editor** in the Executive command field.
2. Press **GO**.

   The name of the default configuration file displays in a highlighted field with a message prompting you to enter a configuration file name and press **GO**.
3. Press **GO**.

   The CM Editor display appears (refer to figure B-1), with information from the default configuration file in the Command List Area.

Figure B-1. CM Editor Display for the Default Configuration File



4. Enter **Executive** in the *Command Name* field.
5. Press **RETURN**.

   The configuration information about the Executive displays.
6. Press **CANCEL**.
7. Press **FINISH** once to display the exit prompt.
8. Press **FINISH** a second time to exit the CM Editor without changing the default configuration.

You can go on to the next exercise.

Exercise 2: Creating a New Configuration File

To create a new configuration file, you use the same procedure as in Exercise 1, but you enter a new file name in the *[Config File Name]* field.

Note: *If the file you specify already exists, CM Editor displays a message asking whether you wish to overwrite the existing file with the new file.*

In this exercise you create a file named *[Sys]<Sys>CMtrainconfig.sys.*

To create a new Context Manager configuration file, use the following procedure:

1. Enter **CM Editor** in the Executive command field.
2. Press **RETURN.**

   The CM Editor form appears with the cursor on the first parameter.
3. Enter the following file name:

   [Sys]<Sys>CMtrainconfig.sys
4. Press **GO.**

   The following message appears:

   ```
   Configuration file does not exist, Create?
   ```
5. Press **GO.**

   The CM Editor display for the new configuration file appears.

You can go on to the next exercise.

Exercise 3: Adding the Applications You Want to Run

To add the applications you want to run, you must have certain information about each application. Normally, you would determine this information in advance and complete a planning form, as described in section 2. In this exercise the planning form information is supplied in table B-1.

Table B-1. Training Configuration

Command Name	Run File Name	Memory Required	Function Key	Command Case
Executive	Exec.run	<300	1	00
OFIS Writer	OWP4.run	<250	2	00
Logout	SignOn.run	<125	10	00
Copy	Exec.run	<175		CM

Part 1 of this exercise, Adding the Executive Application, takes you through each step of adding an application to the configuration file.

Part 2, Adding Other Training Applications, is optional. If you want to configure the file for use with the *CTOS Context Manager II Operations Training Guide*, complete Part 2.

Part 1: Adding the Executive Application

To add the Executive application to the configuration file:

1. Enter **Executive** in the *Command Name* field.
2. Press **RETURN** or **CREATE (F5)**.
3. In the Run file name field, enter *[Sys]<Sys>Exec.run.*

   Press **RETURN**, **NEXT**, **DOWN ARROW**, or **UP ARROW** to move the cursor from one field to another.
4. In the *Memory required* field, enter **<300**.

   The number of kilobytes of memory required by that application is 300. Adding the less than sign (<) allows Context Manager to reduce the size of the memory area allotted to that application, if it takes less space than you specify. This makes more efficient use of available memory.
5. In the *[Abbreviation]* field, use the arrow and backspace keys to shorten the abbreviation to **Exec**.
6. In the *[Function key (0..10)]* field, enter **1**.

   This preassigns the **F1** function key to the Executive application. Any time you want to access the Executive from Context Manager, you can press **ACTION+F1**.
7. In the *[Command case]* field, leave the default, **00**.
8. Leave the remaining fields as they appear (blank or with a default).
9. Press **GO**.

   The highlight returns to the *Command Name* field. The name of the command you just created and the function key you assigned to it appear in the Command List area.

You have added the information required to access the Executive from Context Manager and preassigned a function key to that application.

Part 2: Adding Other Training Applications

To add the other applications required for the training configuration file, repeat the procedure for the remaining three applications shown in table B-1, using the information given in that table.

Note also the following instructions:

- You preface each run file name with *[Sys]<Sys>* or the path information for that runfile, if it is not *[Sys]<Sys>*.
- You can enter an abbreviation of your choice for the command or accept the default abbreviation.

Exercise 4: Saving Your File and Viewing the Results

When you have added all the information to the configuration file, you exit the CM Editor and save your entries. You can then load that Context Manager configuration and view the results on the CM Screen display.

To exit the CM Editor and save your entries:

1. Press **FINISH**.

   A message appears on the Message Line asking you to confirm that you want to finish this session. The Input/Error Line informs you if any inconsistencies exist in your entries.

2. Choose one of the following:

   - To exit the CM Editor and save the changes you have made to the configuration file, press **GO** .
   - If any inconsistencies exist and you want to edit your entries, press **CANCEL**. You edit your entries by entering the name of the command you want to edit and pressing **RETURN** until you reach the field you need to edit. When you finish the edit, repeat steps one and two of this procedure.

   The message `Saving` appears and you return to the Executive Command line.

Note: *For additional information and procedures on changing existing entries in your configuration file, refer to section 5.*

Your configuration file is ready for use. To activate it, you must load Context Manager, specifying the name of the configuration file you just created. You can do this now to check your results.

To start Context Manager and view the training configuration, use the following procedure:

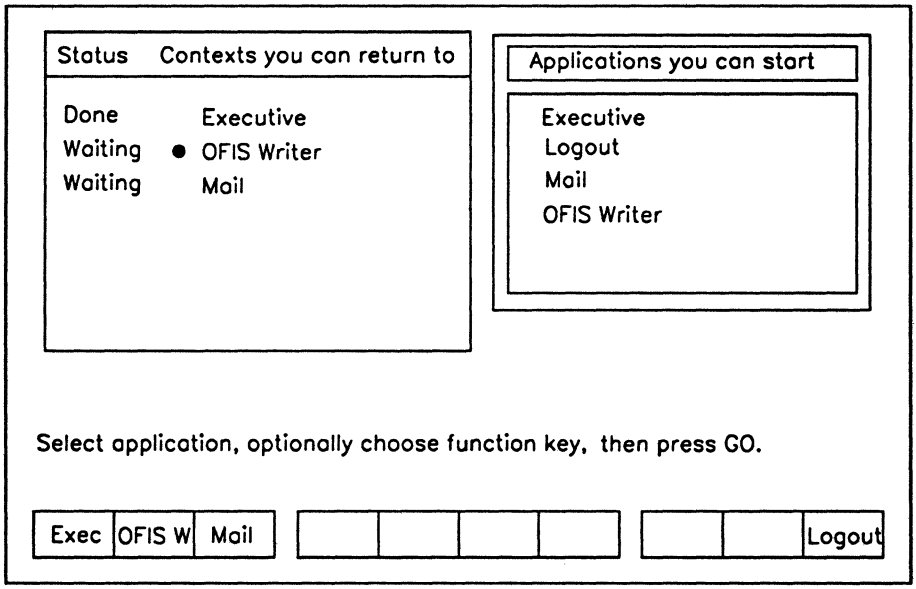
1. Enter **Install Context Manager** on the Executive Command line.
2. Press **RETURN**.
3. Enter the file name ***[Sys]<Sys>CMtrainconfig.sys*** in the *[Config File Name]* field.

   If you do not enter the file name, the default Context Manager configuration is loaded.
4. Press **GO**.

   The Context Manager display appears with the training configuration you entered in the preceding exercise (refer to figure B-2). Note that only the Executive, OFIS Writer, and Logout applications appear on the Function Key display, since you preassigned function keys only for these applications.
5. Press **FINISH**, then **GO** to exit Context Manager.

   The SignOn screen appears.

Figure B-2. Context Manager Operations Training Display (Example)



Exercise 5: Creating a User File

To avoid having to load Context Manager manually and specify a particular configuration file, you can create a user file that automatically installs your Context Manager configuration when you sign on.

In this exercise, you copy the default Context Manager user file supplied with the software, then edit it to specify the training configuration file.

To create a user file for your Context Manager training configuration:

1. Use the Executive **Copy** command to copy the default Context Manager user file, *[Sys]<Sys>CM.user*. Assign the name *[Sys]<Sys>CMtrn.user* to the new file.
2. Use the CTOS Editor to access the file.
3. The line following the **Install Context Manager** line refers to the file *[Sys]<Sys>CMconfig.sys*. Change the file name to *[Sys]<Sys>CMtrainconfig.sys*.
4. Save the edited file.
5. Sign off your workstation, then sign back on using the user name **CMtrn**.

   The system automatically loads your Context Manager training configuration.
6. Press **FINISH**, then **GO** to exit Context Manager.

You have completed the tutorial on configuring Context Manager. If you do not plan to do the operations training exercises, you can delete the files you created during these exercises: *[Sys]<Sys>CMtrainconfig.sys* and *[Sys]<Sys>CMtrn.user*.

Glossary

A

ACTION key

The action key is a key you press in combination with other keys (**Action** + key) to manipulate the state of contexts you access through the CM Screen.

Application

1. An application is a software program that provides a complete user interface.
2. In this guide, an application is a general term describing applications, utilities, or programs that you can run using Context Manager.

Asynchronous Terminal Emulator (ATE)

Asynchronous Terminal Emulator (ATE) is a program that allows a workstation to emulate an asynchronous, character-oriented ASCII terminal to perform data communications.

Autostart

The Autostart feature allows you to specify applications to be started automatically when Context Manager is installed.

B

Background context

The background context is a context that does not currently control the screen and keyboard.

Bitmap

Bitmap is a method of depicting images as a matrix of dots.

Bitmap reserve

The Memory Area of the CM Editor contains a field in which you can reserve memory for saving bitmap images.

BTE

BTE is Unisys terminal emulation software that allows you to use your workstation as a terminal for communicating with a mainframe computer.

C

Chaining

Chaining is the automatic termination and subsequent start of another program.

Character

A character is a single letter, number, screen symbol, or space in text on the display.

Clean

Clean state indicates no side effects of the program running under Context Manager.

Cluster configuration

A cluster configuration is a local resource-sharing group of workstations consisting of a server and one or more cluster workstations. Cluster workstation users can access software running on the server.

Cluster workstation

A cluster workstation is connected to a server workstation within a cluster configuration.

CmConfig.sys file

CmConfig.sys is a sample Context Manager configuration file. You can edit this file or create other configuration files to conform to the applications you want to access through Context Manager. CmConfig.sys is the default file name.

CM Editor

The CM Editor is a program that allows you to create or edit Context Manager configuration files.

CM Editor display

The CM Editor provides a display form on which you enter configuration information.

Cm.user file

Cm.user is a sample user file. If you type the user name **CM** at the SignOn form, this file lets Context Manager load automatically. You can edit this file or create other user files for automatic sign on purposes.

Command

1. A command is an instruction you give to the system to perform a specific action.
2. The applications you add to the Context Manager configuration file are called commands.

Command Editing Area

The Command Editing Area of the CM Editor display contains fields which you use to add applications (such as Enhanced Multiplan, or OFIS Mail) and Executive commands (such as **FLOPPY COPY**) to the CM Editor command list. It appears within a rectangular box surrounded by a double line. You can also use this area to edit, remove, or rename existing commands.

Command List Area

The Command List Area is located within a box on the right side of the CM Editor display. It shows the commands currently assigned to a particular configuration file. On the Context Manager display, these commands are called Applications you can start.

Communications port

Refer to port.

Config.sys

Config.sys is a CTOS system configuration file that contains system specific information, including the name of the swap file to be used in Context Manager.

Configure

To configure is to assemble a selection of hardware or software into a system and to adjust each of the parts so that they all work together.

Context

Once you start an application in Context Manager, it is called a context. A context is a running application.

Context handle

The context handle is a unique identifier that Context Manager assigns to a context when the context is started. The context handle is needed for applications using the CM and ICMS procedural interfaces.

Context Manager

Refer to Context Manager II.

Context Manager display

You can use the Context Manager display to start applications, access contexts, and view the status of contexts.

Context Manager II

Context Manager II is a software application that allows several applications, utilities, or programs to run concurrently.

COPY.

Copy is an Executive operation that duplicates files.

Create key (F5)

When you press this key from the CM Editor display, the highlight moves to the Command Editing Area to allow you to enter the information for this command.

CTOS

CTOS is a Unisys operating system.

CTOS Editor

The CTOS Editor is software used to write and edit certain files.

Current context

Although several contexts run concurrently, you interact with only one context at a time. The one you interact with is called the current context, and is the only one that responds to input. When you switch contexts, the next context becomes the current one.

D

Data transfer

Data transfer (cut and paste) is the operation used for copying data from one context to another.

Default value

A default value gets assigned automatically if you do not specify a value.

Directory

A directory is a group of files on a volume. In file specifications, the directory appears in angle brackets.

Direct printing

The direct printing mode allows printing only from the workstation attached to the printer.

Dirty

Dirty means the program accesses the video directly, addresses the cursor through a port, or changes color or font directly. Such programs cause unpredictable results when they run in background and should be configured so Context Manager suspends them in background.

Distribution diskette

The distribution diskette provides the means to install the software on the workstation.

Done (status)

A status of Done on the Context Manager display means your last Executive application is complete.

E

Editor

Refer to CTOS Editor.

Enhanced Multiplan

Enhanced Multiplan is CTOS spreadsheet software.

Executive

The Executive is the CTOS program that controls access to other programs and data on a workstation.

Exit

Exit means to terminate an application.

Extended Multiplan

Extended Multiplan is CTOS spreadsheet software.

F

Finish

Finish is a CTOS operation that exits a program and removes the display from the screen. Pressing **FINISH-GO** when working in an application closes and saves any open application files. Pressing **FINISH-GO** from the Context Manager display does not save any open application files.

Fixed partitions

Fixed partitions are partitions that do not change in size.

Font

A font is a particular size and style of characters in print or in a display.

Font Reserve

The Memory Area on the CM Editor display contains a field in which you can reserve memory for font switching.

Foreground context

Foreground context is the context that currently controls the screen and keyboard. If you switch contexts, the context you switch to becomes the foreground context.

Form

A form is a display containing fields in which you enter variable parameters or options.

Function Key display

The Function Key display is the highlighted strip at the bottom of the display. It is a set of ten keys that temporarily correspond to the function keys (labeled **F1** through **F10**) on your keyboard.

H

Halted (status)

A status of Halted indicates a context that has been stopped by the system, or by pressing **ACTION+S**, or the key specified in the Context Manager configuration file.

I

ICMS

The InterContext Message Service is an installable system service that lets contexts communicate with each other.

ICMS key (F9)

You use this key to access the InterContext Message Service menu in the CM Editor.

Identification Line

The Identification Line is the top line on the CM Editor display. The program name and version number appear on the left side of this line. A half-bright field that shows the name of the configuration file you are editing appears on the right.

Input/Error Line

The Input/Error Line appears below the Message Line on the CM Editor display. It serves as an input field when the Message Line prompts you for entries. The Input/Error line also shows error messages that occur during an editing session.

Install

To install is to copy software files from installation diskettes to the hard disk of a workstation.

InterContext Message Service

Refer to ICMS.

K

KB

KB is an abbreviation for kilobytes.

Kilobyte (KB).

A kilobyte represents 1,024 bytes.

L

Load

To load is to start a program by copying it from hard disk into memory.

Local disk storage

Local disk storage is the hard disk on a workstation.

Logout

Logout is the command used to exit the Executive and Context Manager.

M

MB

MB is an abbreviation for megabyte.

Megabyte

A megabyte represents one million bytes.

Memory

Memory is a high-speed working area of the central processing unit that writes and reads information.

Memory Area

The Memory Area appears in the lower left portion of the Command Editing Area on the CM Editor display when you press **Memory (F1)**. It contains fields in which you enter bit map and font reserve information.

Memory key (F1)

When you press this key from the CM Editor display, the system moves the highlight to the first field of the Memory Area.

Memory partition

Memory partitions are blocks of memory allocated by the operating system. Usually only one program can run in a single partition at a time.

Menu

A menu is a list of choices.

Message Area

The Message Area is just above the Function Key display at the bottom of the Context Manager display. It prompts you with the status, options, or limitations associated with the context with which you are working.

Message Line

The Message Line is located immediately below the Identification Line on the CM Editor display. During your operation of CM Editor, messages appear on this line telling you what to do next or what the software is doing.

More key (F10)

The More key is a CM Editor function key that brings up a field where you can enter parameters in the Context Manager configuration file. This key is available after you have entered a name in the CM Editor Command Name field and pressed **RETURN** or **Create (F5)**.

Mouse

A mouse is a hardware device for moving the cursor and making selections on the display.

Mouse cursor

The mouse cursor is a small rectangular highlight the user moves on the display by moving the mouse on the desktop.

Multipartition

Multipartition is a configuration that provides for the division of available memory into more than one portion of specific memory size.

Multiplan

Refer to Enhanced Multiplan.

N

Node

A node is the name of a workstation on a BNET network.

O

OFIS Mail

OFIS Mail is CTOS electronic mail software.

OFIS Writer

OFIS Writer is CTOS word processing software.

P

Partition

A partition is a defined portion of workstation memory. Each application runs in a separate partition, which Context Manager creates when you start the application.

Partition Status command

Partition Status is an Executive command that displays the status of memory partitions.

Path

A path specifies the volume and directory in which a file resides.

Port

A port is a hardware connection on a computer to which you can attach a communications line.

Protected mode

Protected Virtual Access Mode, commonly called protected mode, is a form of operation for the Intel 80286, 80386, and 80486 microprocessors (used in the B28, Series 286, B38, Series 386, B39, and Supergen workstations).

Protected mode operating system

An operating system such as CTOS that takes advantage of the capabilities of the 80286, 80386, and 80486 microprocessors is a protected mode operating system. A protected mode system gives programs access to more memory. It protects programs from being overwritten by restricting access rights to areas of memory where programs are already located. It runs real mode applications in lower memory (up to 1MB) and runs protected mode applications and system services in extended memory (above 1MB).

R

Real mode

Real mode is the form of operation of the Intel 8086 and 80186 microprocessors. B24, B26, Series 186, and B27 workstations run in real mode.

Real mode operating system

An operating system running on a workstation with an 8086 or 80186 microprocessor is a real mode operating system. It access only up to 1MB of memory, runs only real mode applications and system services, and does not protect a program's data or code segments.

Remove key (F6)

When you press this key from the CM Editor display, the system removes the name in the *Command Name* field from the Command List Area.

Rename key (F7)

When you press this key from the CM Editor display, the system lets you edit the command name that appears in the *Command Name* field.

Reverse video

Reverse video is a screen attribute that reverses the light and dark display characteristics of characters and the background appearing on the screen. For example, if you specify reverse video for a screen that normally displays light characters on a dark background, the screen will display dark characters on a light background.

Run file

The run file is the application program file that is loaded into memory so that you can use the program.

Running (status)

A status of Running means that the application is currently executing.

S

Server

A server is the hub of a cluster configuration. It provides a file system, queue management facility, and other services to cluster workstations. In addition, it supports its own interactive programs and application systems.

Show key (F3)

When you press this key from the CM Editor display, the system overwrites the CM Editor Function Key display with the current Context Manager display function key assignments.

Spooled printing

Spooled printing allows all clustered workstations to use one printer attached to a workstation in the cluster. The system stores documents to be printed in a spooler queue that controls the printer.

Status code

A status code is an error message with an associated number.

Status column

The Status column appears on the left of the CM Screen display. It indicates the status of the corresponding context.

Status terms

Status terms refer to the status of a specific context. They are: running, waiting, done, swapped, and stopped. (Refer to individual glossary entries for each status).

Stopped (status)

A status of Stopped means the context is in the background, but not running. This context can run only in the foreground.

Swap file

A swap file is a file to which the operating system can swap contexts and thus increase the number of available contexts. Although the operating system creates a default swap file, you have the option of creating and using a swap file of a different size.

Swapped context

A swapped context refers to a context that the operating system temporarily puts in your system's swap file, thus leaving room for you to open more applications when your system partitions are full. The swapping capability and the extent of swapping are dependent upon the size of the configured swap file.

Swapped (status)

A status of Swapped means that operating system temporarily stores a context on disk to make room for another context. The swapped context is open and available to you, but is suspended until you recall it.

System service

A system service is a program that performs a service for other programs. An application notifies a system service that it wants its service performed by issuing a request.

U

Undo key (F2)

When you press this key from the CM Editor display, the system replaces the value in the highlighted field with the immediately previous value for that field.

User file

A user file identifies each system user and specifies the environment the system activates after the user signs on and exits from the system. It also can contain other specifications about the user environment. The user file name consists of the user name and the suffix *.user*.

Utility

A utility is a program that performs an activity not specific to one application, such as formatting a disk or copying a file. Utilities are accessed through the Executive.

V

Variable partitions

Variable partitions shrink or grow based on run file information about the application's memory needs.

Volume

A volume is a disk (hard or floppy). In file specifications, the volume appears in square brackets.

W

Waiting (status)

A status of Waiting means that the application is not operating; it is waiting for your input.

Index

A

B

C

D

E

F

H

I

M

N

P

R

S

T

U

V